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ABSTRACT

The status of health services components of master's degree programs in health services administration is described. Included are student coursework in related subjects such as quantitative methods, statistics, program evaluation, research design, operations research, and systems analysis, as well as student and faculty research. A general survey of 65 established graduate-level programs in the U.S. and Canada and an in-depth analysis of 15 programs were conducted. From the general survey, programs that required students to complete a major research project (essay/thesis) or offer students a thesis option for graduation are identified and student research topics are categorized. From the in-depth analysis the following data is presented: status of research activities, future research plans, provisions of research opportunities for faculty members, faculty research activities, required research courses, and research project/thesis requirement for students. The appendices contain: study sample of 65 graduate programs in health administration; study sample of 15 programs selected for in-depth analysis; masters' student thesis topics; faculty research topics; and recommended curriculum components. (SPG)

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HEALTH SERVICES RESEARCH COMPONENTS OF MASTER'S DEGREE PROGRAMS IN HEALTH SERVICES ADMINISTRATION

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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HEALTH SERVICES RESEARCH COMPONENTS

OF MASTER'S DEGREE PROGRAMS

IN

HEALTH SERVICES ADMINISTRATION

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A. INTRODUCTION

This report is a tentative effort to describe the status of health services research components of master's level programs in health services administration. This includes student coursework in related subjects, such as quantitative methods, statistics, program evaluation, research design, operations research and systems analysis. It also includes student and faculty research.

Practicing health care administrators can hardly be labeled as health services researchers. Few line administrators perform administrative tasks requiring specific knowledge of health services research techniques and methodologies. Yet, there is evidence that graduate students in health administration are exposed to and participate in a surprising amount of what may be broadly defined as health services research.

Several reasons can be given. First, administrators often act as creative problem solvers, literally searching and "re-searching" for repetitive patterns allowing prediction and control. In this classic sense, effective administrators often have a cast of mind similar to that of researchers, especially with regard to identifying problems and evaluating validity or reliability of data. Secondly, health administrators are in key positions to help solve problems of health care related to assuring access, availability, efficiency, quality, accountability, etc. In this role, they are being called upon to assist planners and health services researchers, by providing large amounts of data and at times even adjusting service patterns to requirements of pre- and post-testing, statistical randomization, quasi-experimental designs and the like.

Finally, administrators and policy-makers are potentially prime consumers of health services research, playing potentially pivotal roles in the diffusion of innovation

based on rational and systematic research rather than pragmatism and political expediency. Thus, health administrators stand as potential beneficiaries of both research mentality and research technology.

A description of current research components in health administration curricula serves several purposes. First, this information may be useful to educational administrators and faculty in determining the adequacy of research experience in health administration curricula. Specifically, it may be beneficial in assessing current offerings and developing new curricula. Second, decision-makers may use this information as a guide to new directions and developments in the health field and to determine if present research efforts are keeping pace with social changes. Finally, information on the specific types of research projects might be immensely useful to administrators as aids in a variety of decision-making areas.

The research described in this paper was part of a larger curriculum development project sponsored by the Division of Associated Health Professions, Bureau of Health Manpower, Department of Health, Education and Welfare.[1]

The overall goal of the study was to determine the appropriate health, behavioral, and social science curriculum components of graduate programs in health services administration. Specific objectives were:

- to identify functions of future health services administrators which necessitate a knowledge of the health, behavioral, and social sciences, and health services research and research methodologies;
- to identify the specific health science, behavioral science and health services research currently being offered in health services administration curricula;
- to specify health and behavioral science courses which will be most essential and those which will be less relevant, to the training of future health services administrators but are absent in current program offerings;

- to identify health services administration programs which require a major research project or offer students a thesis option for graduation.
- to identify the research areas or courses which provide the focus for students who are to complete required research or elect the "thesis option".

B. CONCEPTUAL FRAMEWORK

Before considering curriculum content, it is appropriate to view curriculum within a larger context. The explicit project goal was to develop curriculum recommendations in terms of future administrative functions requiring knowledge, attitudes, and skills related to health, behavioral, and social sciences. However, doing so requires dealing with a number of complicated interfaces between elements of a dynamic system, some of which are depicted in Figure 1 -- "The Context of Curriculum Development". This figure indicates social, economic and political forces impacting the current pattern of health services, stimulating rapid changes leading to a modified but uncertain future health care system. Within this context, the roles and functions of future health care administrators may be modified from their current ones. Role specification (present and future) is further complicated by enormous variations of administrative roles depending upon level (e.g. chief executive, middle management, entry level functional specialist, etc.) and health care setting (e.g. hospital, long-term care, group practice, community setting, etc.). These current and future administrative functions require knowledge, competencies and values, which in turn should serve as the target for determining educational objectives of undergraduate, graduate and continuing education programs. Only within this context do curriculum content and pedagogical methods utilize faculty resources, academic disciplines and students of varying backgrounds and experience. Figure 1 also portrays gaps in present knowledge and lack of educational sophistication in dealing with:

- present and future administrative roles/functions and requisite knowledge/attitudes/skills/attributes, to perform these functions;
- curriculum content, educational methods and knowledge/attitudes and skills; and
- disciplinary knowledge/technique and curriculum content/educational methods.

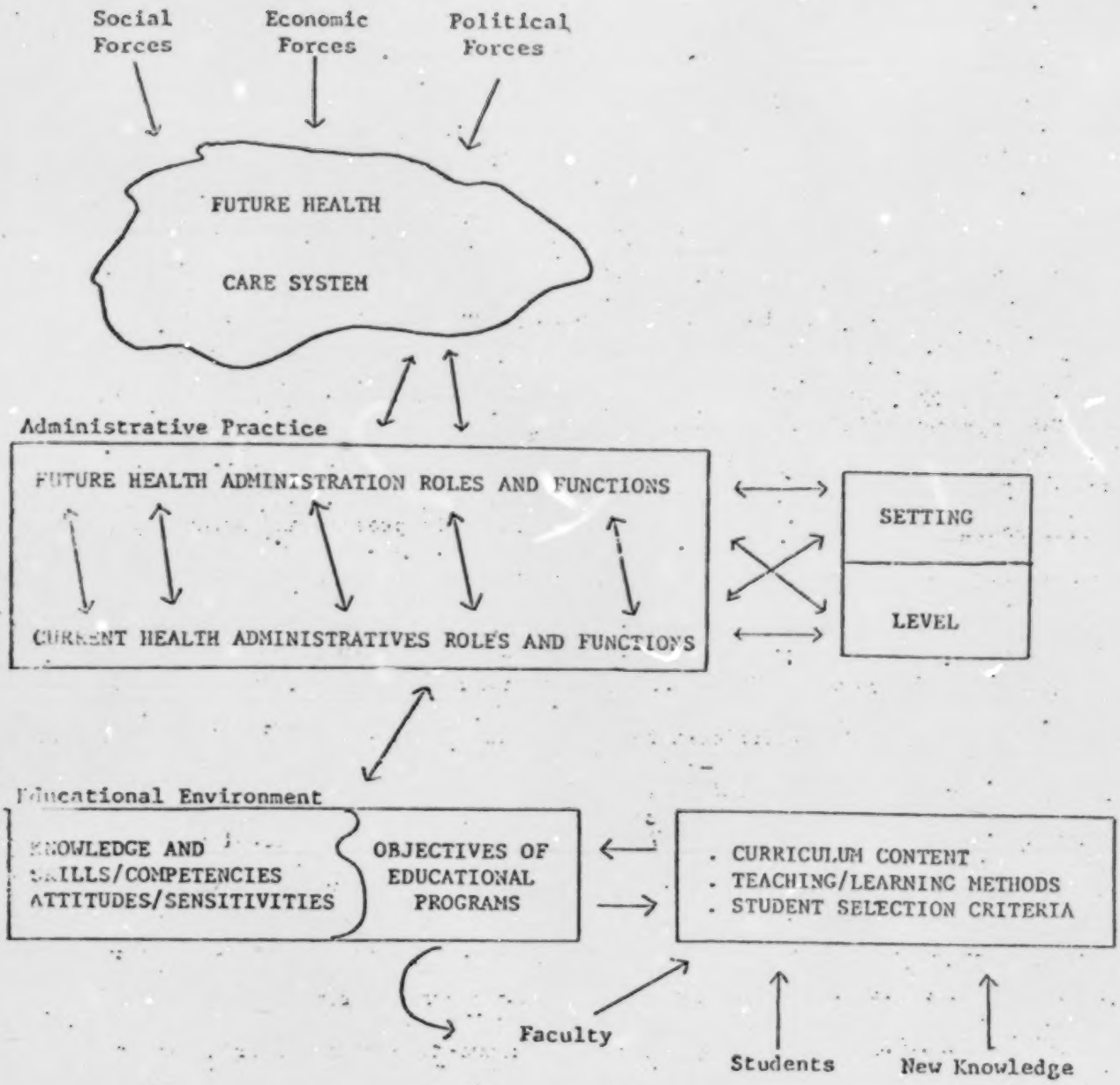


Figure 1 - THE CONTEXT OF CURRICULUM DEVELOPMENT

The approach originally envisioned for developing recommended curriculum components was to select health, behavioral, and social science disciplines, and to commission papers on the present and potential contribution of each to health administration education.

It became apparent that such focus on independent disciplines had a major disadvantage. There was a danger that the approach would yield fragmented and overlapping information, difficult for both faculty and students to integrate into a cohesive curriculum. In addition, this traditional approach to curriculum development focused attention primarily on INPUTS to the educational process (theory and disciplines), when OUTPUTS (knowledge, skills and values enabling graduates to function in the role of administrator in a rapidly changing health system) might be a more appropriate basis for course content.

The alternative approach selected is illustrated by a two-dimensional matrix, an example of which is depicted in Figure 2. The vertical axis contains classes of key administrative functions and problem areas which health managers are likely to face. The horizontal axis consists of academic disciplines, sciences, and approaches. Integrating these two axes, via the matrix, traditional disciplines could be evaluated to "prove their value" in being useful in helping administrators function effectively. This matrix was used both to evaluate academic disciplines in terms of their relevance to administrative practice and in developing curriculum recommendations.

Figure 2

KEY ADMINISTRATIVE FUNCTIONS/PROBLEM AREAS	1. Quantitative Methods	2. Statistics	3. Research Design	4. Operations Research	5. Systems Analysis	6. Program Evaluation	7. Political Science	8. Health Economics	9. Preventive Medicine	10. Epidemiology	11. Medical Sociology	etc.	
managing/coping with/effecting organizational change/growth/innovation													
assessing health care needs, planning and setting priorities for health services													
developing an information base for and participating in decision-making													
moderating costs/assuring efficient operations													
assuring organizational public accountability													
developing effective interprofessional communications/working relationships													
managing personnel-related activities/labor relations													
creating an ethical environment with concern for patien, employee, and community health													
exercising leadership for change leading to accessible, corrdinated, quality health care													
keeping up with and impacting on legislation and public policy													
interfacing/coordinating with other public and private health care interests/organizations													
promoting and maintaining positive public relations and citizen/community involvement													
continuing personal growth and development to improve management ability													
GENERAL BACKGROUND/FAMILIARITY													

METHODOLOGY: OVERALL PROJECT

Methodology consisted of five elements, graphically depicted in Figure 3. Each is reported in more detail in the Final Report of the Health, Behavioral, and Social Science Project.[2]

1. A search of the literature relevant to health and behavioral science education for health administration and the health professions.

2. An analysis of current health administration curricula, conducted in two parts. A general survey was made of 65 graduate programs in the U.S. and Canada from catalog descriptions. Because of definitional overlaps a decision was made to study not only the health and behavioral sciences, but the entire health administration curriculum. This was supplemented by an in-depth study of 15 selected graduate programs, based on recent accreditation documents or comparable materials provided by unaccredited, established graduate programs. Course syllabi were used to analyze the content of required and elective courses.

3. The exploration of key administrative roles, functions and management problem areas requiring knowledge of health sceinces, behavioral sciences or health services research. Although this was not an empirical study, the nominal group process of Delbecq was used to solicit opinions from practicing administrators in group practice, long term care, hospital and policy settings, as well as educators. An additional source of opinion was position papers solicited from more than 100 health-related organizations and interested individuals.

The emerging list of administrative functions was compared with early results of field research on administrative roles being conducted by the George Washington University, AUPHA, the University of Wisconsin and the Medical Group Management Association.[3]

The list of key administrative functions/problem areas was finally integrated into 13 broad clusters of role/goal statements (see matrix) to be used as target areas for focusing the process of curriculum analysis and development. Although established conceptual schemes (e.g. Katz-Kahn) were avoided the list is remarkably similar to those assembled by empirical studies being conducted by the University of Wisconsin and the Medical Group Management Association.

4. Lengthy papers were commissioned among scholars in 20 health, behavioral, and social sciences/disciplines/emerging approaches. Health sciences were defined as focusing on health, illness, and the intervention process relating to both individuals and populations. Subelements include:

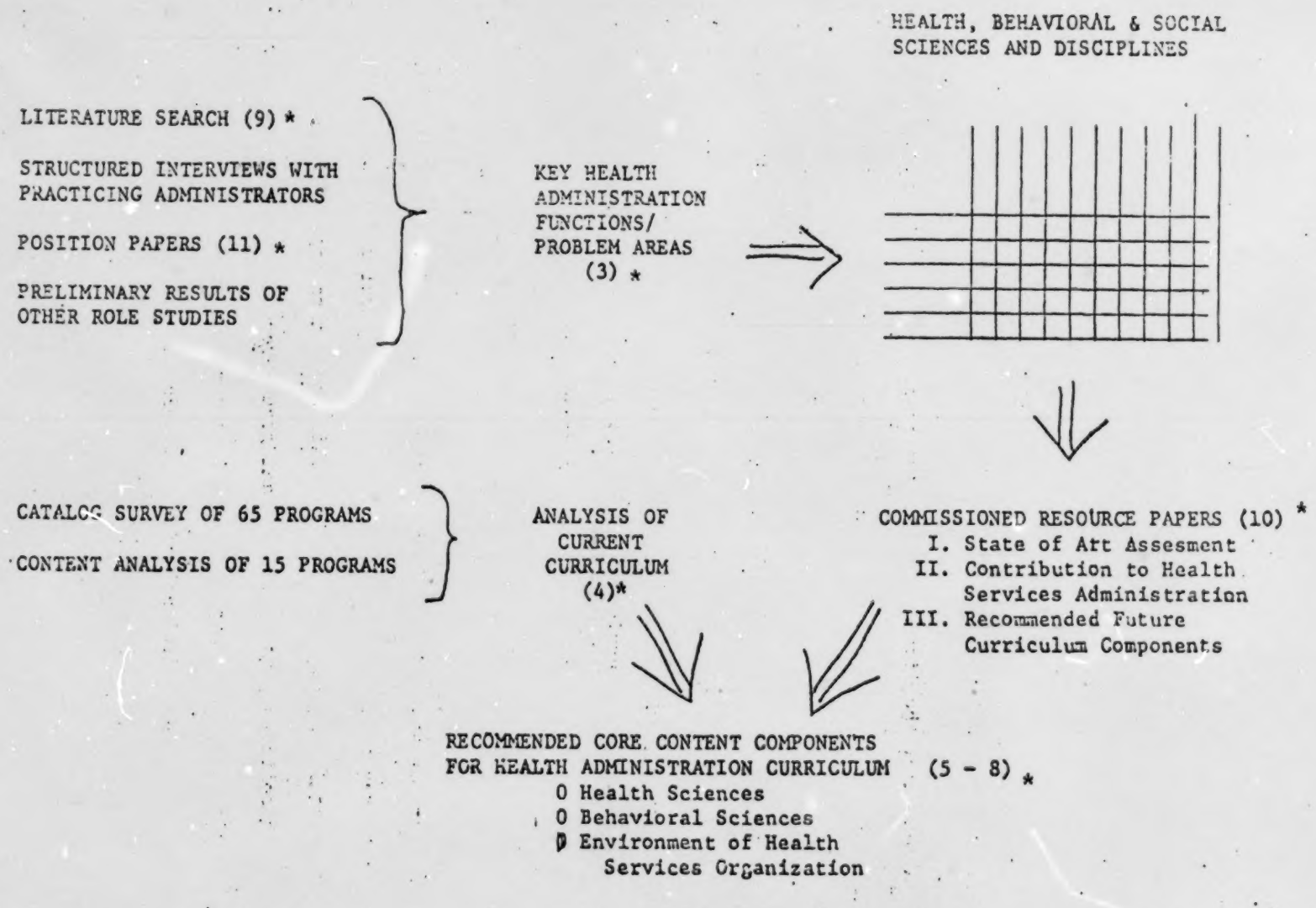
- human ecology
- epidemiology
- environmental health sciences
- preventive and social medicine
- biological sciences, medical, nursing and patient care practices
- mental health, illness and therapy
- health services organization in the U.S.
- cross national study of health systems.

Behavioral and social sciences were defined as focusing upon people and their behavior in relationship to others and their environment, both within and outside of formally designated organizations. They included:

- organization psychology
- organization theory
- applied behavioral sciences
- medical sociology and cultural anthropology
- health economics
- political science
- health law
- human services
- futures research
- communication-education
- program evaluation, and
- ethics

Using common guidelines[4] each "state of the art" paper was prepared in three parts. Part 1 was an overview and critical assessment of each field in terms of its present and potential contribution to health services delivery. This includes definitions, content and knowledge areas, investigative methods, emerging areas of research and

FIGURE 3 - SUMMARY OF PROJECT METHODOLOGY


HEALTH, BEHAVIORAL & SOCIAL SCIENCES AND DISCIPLINES
LITERATURE SEARCH (9) *
STRUCTURED INTERVIEWS WITH PRACTICING ADMINISTRATORS
POSITION PAPERS (11) *
PRELIMINARY RESULTS OF OTHER ROLE STUDIES
KEY HEALTH ADMINISTRATION FUNCTIONS/ PROBLEM AREAS (3) *
CATALOG SURVEY OF 65 PROGRAMS
CONTENT ANALYSIS OF 15 PROGRAMS
ANALYSIS OF CURRENT CURRICULUM (4)*
COMMISSIONED RESOURCE PAPERS (10) *
I. State of Art Assesment
II. Contribution to Health Services Administration
III. Recommended Future Curriculum Components
RECOMMENDED CORE CONTENT COMPONENTS FOR HEALTH ADMINISTRATION CURRICULUM (5 - 8) *
0 Health Sciences
0 Behavioral Sciences
0 Environment of Health Services Organization

* ( ) = Chapter No. in Final Report of the Health, Behavioral, and Social Sciences Project

an annotated key to the literature.

Part 2 addressed the potential contribution of each science to health services administration. Writers commented on the appropriateness of the administrative functions listed (are these the "real" problems, what particular insight into these problems and/or administrative approaches can be offered by each field?). Writers then addressed particular administrative functions taken from the matrix, thus demonstrating by example and case study how their science may be useful in helping administrators function effectively.

In the final section each writer developed recommended curriculum components, commenting upon practical educational issues such as which teaching approaches appear most successful, what learning objectives might be appropriate for health administration students, the importance of timing, whether there is a minimal "critical mass" of study or exposure, who is qualified to teach this material, etc.

These commissioned papers should serve as valuable resources for health administration faculty in basic and continuing education programs, as well as for health administration students and practicing administrators. In addition, they were carefully evaluated by health administration faculty assembled into several Study Groups, in developing over a hundred recommended health, behavioral, and social science curriculum components. These modules are listed in Appendix E.

5. An Advisory Committee and two Study Groups helped to developed and critique project methodology and intermediate products, to discuss critical questions in developing health and behavioral sciences curriculum, and to deliberate over recommended curriculum components.

Another distinctive feature of this project should be mentioned. A high degree of "consumer participation" (involvement of recipients of project findings and recommendations) was built into each stage of the project in the hope of improving the results and facilitating implementation of recommendations. To avoid inbreeding of thought, a number of "outsiders" served as reactors both on the advisory committee and as writers of position and commissioned papers.

D. METHODOLOGY: Health Services Research Components

The research was conducted at two levels: a general survey of 65 health services administration programs and an in-depth analysis of 15 programs.

1. General Survey of 65 Programs. Sixty- five established graduate level programs in health services administration in the U.S. and Canada were identified which had identifiable curricula, had graduated at least two classes by 1975 and had at least five graduate students enrolled. These programs are listed in Appendix A. Using this base of 65 programs, the current survey sought to provide the following information:

a) identification of programs which required students to complete a major research project (essay/thesis) or offer students a thesis option for graduation;

b) specification and categorization of student research topics.

The initial information source for identifying programs with an essay/thesis requirement or option and for identifying specific research courses were course catalogs for the 1974-75 academic year. Information on required research/thesis options was confirmed by telephone calls to all 65 graduate programs, at which time data on student research topics was requested and subsequently received by mail.

2. In-Depth Analysis of 15 Programs. Fifteen programs were selected for a more detailed discussion of research activities in the programs. Selection was based on availability of recent accreditation documents (or comparable materials) as location. A list of the 15 programs is included in Appendix B, organized by program locus. For each program, the following data was gathered:

a. status of research activities in the program;
b. future research plans for the program;
c. provisions of research opportunities for faculty members by the program;
d. faculty research activities:
    1. percent of time faculty devote to research;
    2. research projects in which faculty participate, including type of research, source and amount of project funding, interdisciplinary activities;
e. required research courses, including content areas for specific courses;
f. research project/thesis requirement for students.

The previously described information was gathered from the Survey Questionnaire for Graduate Programs in Hospital Administration of the Accrediting Commission on Education for Health Services Administration.

E. GENERAL SURVEY OF 65 PROGRAMS

1. Overall Curriculum. Due to the multidisciplinary nature of health services research, the detailed curriculum analysis contained in the Final Report did not designate health services research as a separate curriculum area. Each discipline concerned with health care has its own research questions and literature. Table I shows the curriculum categories chosen for analysis. All, with the exception of humanities, has some link to health services research. This makes it impossible to quantify the relative weight in the curriculum given to health services research. However, several summary statements about the curriculum may be useful.

TABLE I

CATEGORIZATION OF CURRENT REQUIRED GRADUATE HEALTH ADMINISTRATION COURSES

CATEGORY	FREQUENCY	
	No.	%
Health Sciences	81	12
Health Services Organization	63	10
Behavioral/Social Sciences	130	21
Management/Administrative Sciences	233	47
Quantitative Methods	63	10
Humanities	0	0
Miscellaneous	60	9
	630	99%

a. Program locus has broadened considerably beyond the historic division between public health and business. Programs are now almost equally divided among 1) schools of public health, 2) schools of medicine and allied health, and 3) schools of business or public administration and graduate schools. Additionally, an increasing number of programs are jointly offered between one or more schools, thus loosely labeled multi-disciplinary sponsorship.

b. Most programs award only one master's degree; however, degrees vary widely, including, in decreasing orders of frequency, MPH-MSPH, MHA, MBA, MSA, MA, MPA. Program length is almost invariably 21-24 months of study.

c. Prerequisites are becoming increasingly important. Approximately 40% of programs required at least one course, the mode being three or four courses. Economics, statistics and accounting were the most frequently required, although sociology, biology, chemistry/physics and psychology were also required by a smaller number of programs.

d. Experiential learning in the form of administrative clerkships, internships or residencies were required by two-thirds of programs. The length ranges from six weeks to one year; by far the most frequent length is three months.

e. Management and administrative science courses constitute the emphasis of most programs (see Table I), accounting for approximately 44% of all required courses in the 65 programs. In addition, a majority of the elective courses offered fall into management and administrative science areas. Courses in health sciences and health services organization account for 22% of all required courses, and behavioral/social 21%. Compared to earlier studies on health administration curriculum, the behavioral/social sciences appear to occupy an increasing portion

of required courses.

f. With respect to course content, all programs have some aspects of health and behavioral/social sciences. However, the specific courses and content vary widely between programs. For example, 28% of the 65 programs had no required course with a title specifically indicating health sciences; similarly, 11% required no courses with titles suggesting behavioral/social sciences. Another example of widely varying content is that a health law course in one program emphasized theory and types of law, while in another program the emphasis was patient rights. It it unclear whether this difference reflects program philosophy or might suggest uncertainty about what specific components are needed to educate administrators.

g. Course content in both the health and behavioral/social sciences seems to overlap disciplines as reflected in course labels. For example, segments of organizational behavior were frequently discussed in political science courses; epidemiology content was found in a program evaluation course. At a minimum, content seems to be interrelated, suggesting inter- rather than multi-disciplinarity.

h. Flexibility within a curriculum varies widely. Required courses for graduation vary from 20-100% of the curriculum. In general, electives vary from 10 to 50% of the curriculum. Comparing program electives offered as opposed to those selected by students is interesting. In the in-depth study of 15 programs, for example, 19% of courses offered were in health sciences, whereas only 4% of those selected by students were in this category. The 8% of courses offered in health services organization represented 12% of those taken. Approximately one quarter of electives were offered and taken by students in the behavioral and social sciences.

On the other hand, among electives offered in schools or departments outside the program, 22% were taken in the health sciences, 42% in the behavioral sciences and only 24% in the management sciences.

Many course titles indicated a link to research skills, especially those within the category "quantitative methods". A partial listing of course titles found among the 65 programs follows:

- information - management systems
- quantitative methods/analysis
- statistics/biostatistics/probability/etc.
- research design/methodology
- program evaluation/evaluation research
- operations research/analysis, etc.
- systems analysis/general systems
- comparative health systems/cross-national study
- economic analyses/cost-benefit analyses
- health planning and evaluation

2. Student Thesis Requirement or Option. Prograr descriptions were examined for 59 of the 65 programs for which catalogs were available. Thirty-two or 49.2% required a thesis or major research project or offered one as an option for graduation, as noted in Table II. No mention was made of a thesis of project in 23 catalogs; hence, it was presumed the total number offering thesis equivalents was underrepresented. To confirm this, telephone inquiries were made of all 65 programs with regard to their 1976 graduating class. Table II indicates that

thirty programs, or almost half, required a major essay, research project of other thesis/equivalent. An additional thirteen programs offered a thesis option, although several indicated voluntarily that no students had ever chosen to write a thesis. In total, two-thirds of all master's programs surveyed had a thesis requirement or offered an equivalent option.

3. Areas of Student Research. Student thesis topics for 1974-75 were requested of all forty-three programs offering a thesis or equivalent. Thirty-eight lists, containing a total of 585 thesis projects, were categorized according to three different schemes. Because of the broad definition of health services research, no attempt was made to identify whether or not theses fall under the rubric of health services research. Thesis topics as taken from titles, are listed in Appendix C.

Table III categorizes and provides a frequency distribution of theses according to the schema used by Flook and Sanazaro in 1974 to survey the health services research literature. Organization and administration of health services; evaluation and quality of care; economics, costs and financing; health manpower; and health facilities each accounted for more than 10% of all thesis topics. Together, these five areas accounted for over two-thirds of all theses.

Table IV categorizes the theses according to sciences and disciplines used in the matrix described earlier. By far the largest numbers (14.7%) fell under health services organization in the U.S., followed in order by theses relating to quantitative methods, operations research and systems analysis (8.7%), financial management (7.6%), organization theory and behavior (6.8%) and personnel management (6.6%).

Table V lists the topics according to key administrative functions and problem areas, as developed by the methodology described above. Administrative functions most frequently relating to student theses were managing organizational change (17.7%), moderating costs/assuring efficient operations (16.7%), and evaluating/assuring program effectiveness and quality (12.5%). A subjective observation is that categorizing the theses was much easier by administrative functions or the Flook/Sanazarro taxonomy than by discipline, indicating perhaps the practical orientation of health services administration students' interests.

TABLE II

RESEARCH PROJECT/"THESIS" EQUIVALENT
REQUIRED OF MASTERS LEVEL
HEALTH ADMINISTRATION STUDENTS

Catalog Data (1973-4 or 1974-5)	Number of Programs	%
• thesis requirement or option	32	49.2
• no thesis offered	4	6.1
• no mention of thesis	23	35.4
• no catalog available	6	9.2
	65	99.9
Telephone/Letter Data (re: 1976 graduates)		
• thesis requirement	30	46.1
• thesis option	13	20.0
• no thesis offered	21	32.3
• non-response	1	1.5
	65	99.9

TABLE III

FREQUENCY DISTRIBUTION OF THESES OR EQUIVALENT RESEARCH TOPICS AMONG MASTER'S STUDENTS IN HEALTH ADMINISTRATION (1974-5)

Category	No. of Theses	%
Organization and administration of health services - private and public sector	131	22.4
Evaluation and quality	80	13.7
Economics, costs and financing	72	12.3
Health manpower	65	11.1
Health facilities	64	10.9
Social and behavioral aspects of health care	42	7.2
Utilization of health services	39	6.7
Health services technology	34	5.8
Nursing health services research	27	4.6
Pharmacy related health services research	9	1.5
Dental health services research	7	1.2
Research methods	6	1.0
Emerging concepts of health services research	2	0.3
Miscellaneous	7	1.2
	585	99.9

*From Flook and Sanazaro, Health Services Research and R & D in Perspective. Ann Arbor: Health Administration Press, 1973.

TABLE IV

DISTRIBUTION OF THESES OR EQUIVALENT RESEARCH TOPICS
AMONG MASTER'S STUDENTS IN HEALTH SERVICES ADMINISTRATION
1974-75
BY DISCIPLINE

Category		No. of Theses	%
A. Health Sciences Research			
Health Services Organization (U.S.)		86	14.7
Patient Care Practices		32	5.4
Preventive and Social Medicine		16	2.7
Mental Health Care		16	2.7
Epidemiology and Human Ecology		8	1.3
Environmental Health		6	1.0
Cross National Study of Health Systems		3	0.5
	subtotal	167	28.3%
B. Behavioral/Social Sciences Research			
Organizational Theory, Behavior and Development		40	6.8
Program Evaluation		32	5.4
Health Economics		30	5.1
Education/Communications		28	4.7
Health Politics/Political Science		26	4.4
Organizational Psychology/Social Psychology		26	4.4
Planning, Forecasting		19	3.2
Human Services		18	3.0
Medical Sociology/Anthropology		17	2.8
Health Law		14	2.3
Community Organization/Development/Participation		6	1.0
	subtotal	256	43.1%
C. Management/Administrative Sciences Research			
Quantitative Methods/Operations Research		51	8.7
Financial Management		45	7.6
Personnel Management		39	6.6
Information/Computer Sciences		15	2.5
Marketing		9	1.5
Miscellaneous		3	0.5
	subtotal	162	27.4%
	total	585	98.8%

TABLE V

FREQUENCY DISTRIBUTION OF MASTER'S THESES OR EQUIVALENT RESEARCH - 1974-75
BY CATEGORIES OF ADMINISTRATIVE FUNCTION/PROBLEM AREAS

Category	Number of Theses	%
Managing/coping with/effecting organizational change/growth/innovation	104	17.7%
Moderating costs/assuring efficient operations/ financial management	98	16.7
Exercising leadership for evaluating and assuring program effectiveness, quality health care	73	12.5
Assessing health care needs; planning and setting priorities for health services	73	12.5
Managing personnel-related activities/labor relations	58	9.9
Developing an information base for and participation in decision-making	40	6.8
Interfacing/coordinating with other public and private health care interests/organizations	30	5.1
Keeping up with and impacting on legislation and public policy	25	4.3
Developing effective interprofessional communications/working relationships	24	4.1
Assuring organizational public accountability; creating an ethical environment with concern for patient, employee, and community health	22	3.7
Promoting and maintaining positive public relations and citizen/community involvement	20	3.4
Continuing personal growth and development to improve management ability	11	1.8
Miscellaneous	7	1.1
	585	99.6

F. IN-DEPTH ANALYSIS OF 15 PROGRAMS

1. Status of Program Research Activities. Status of research refers to the role of research in a health administration program and the extent to which faculty members are involved in this activity. Three programs in the sample made no statement with respect to status of research. The remaining programs presented a variety of responses, ranging from a list of faculty research projects to a statement describing the role of research vis-a-vis education in the graduate program.

The data does not permit a systematic categorization of responses primarily because programs did not use the same dimensions to describe the status of research. Rather, the following points are made with respect to status of research:

- Two programs emphasized that research had a low priority with respect to teaching and education. Specifically, "Teaching has pre-empted research" and ..."priority has been given to developing instructional content".
- Two programs indicated that all faculty members in their respective programs were involved in research and the nature of this research was both individual and collaborative.
- Five programs indicated that faculty members were actively involved in research, although specific numbers were not indicated. In this category, one program listed the extensive research being conducted in the areas of large-scale systems and issue orientation. Another program not only encouraged faculty involvement in research but also described research as being an important criterion in faculty promotions and rewards.
- One program described the research effort as being a support to the education effort. Further, while research was a developing function in the program, the emphasis was on applied research and was directly related to a community research program.

- One program emphasized the development of student research guided by faculty, adding that research was a significant part of the curriculum.
- Finally, one program made no statements on research but merely listed faculty research projects.

2. Future Research Plans. Statements on future research plans were made by 12 health services administration programs. Basically, programs indicated that faculty research efforts would continue at their present levels and several programs described mechanisms and/or directions for expanding research:

- One program stated that 10% of faculty time would be devoted to research and that six research seminars would be presented during the academic year.
- Two programs planned to encourage more interdisciplinary efforts in research activities.
- One program was recruiting a new faculty member to conduct research.
- One program hoped to create a Center for Health Services Research.
- One programs anticipated an expansion of its research and community services activities.
- One program was preparing to better coordinate its health services research program.
- Two programs emphasized the need for more money and/or faculty for research.

Several programs listed new research areas being explored by faculty members:

- Politics, policy, and law related to the organization and delivery of health services;
- Management structures and information systems;
- Evaluation project for a regional high-risk newborn center program;

- Contraceptive behavior;
- Financing, organization and utilization of health services;
- Access to health services;
- Cross-national studies of utilization and staffing;
- Impact of medical care on health status;
- Organizational analysis of hospital efficiency and quality of medical care;
- Evaluation of impact of health planning;
- Physician manpower analysis;
- Policy studies.

3. Provisions for Research Opportunities for Faculty. Programs described research opportunities primarily in terms of access to specific institutions. However, other mechanisms were mentioned:

a. In one program, 40% of faculty time was allowed to pursue research activities.

b. Another program described the research opportunity in terms of a general statistical requirement and a research methods course. This mechanism seems to be related more to student rather than faculty research opportunities.

c. Two programs listed computers and libraries as providing research opportunities.

d. Two programs encourated the development of conyacts with the state and federal government for data and financial backing for research.

e. The remaining programs listed a variety of institutions, such as:
   - the university itself
   - hospitals
   - residency sites
   - centers
   - institutes
   - metropolitan areas
   - local and state health organizations
   - various community-based programs

4. Faculty Research Activities.

a. Percent of time devoted to research. An attempt was made to construct a profile of faculty members, describing the amount of time spent on research activities compared to other significant program activities. The profile was constructed only for full-time faculty members (see Table VI).

Clearly, research constitutes a significant component of the variety of activities in which faculty members engage. Quite predictably, 50% or more of a faculty member's time is spent teaching. The majority of faculty, however, devote between 1 and 20% of their time to research.

TABLE VI

PERCENT OF FACULTY TIME DEVOTED TO RESEARCH

Number of Programs Which Devote _____% of Time to Activities . . .	Activities					
	Teaching	Supervis. of res./ theses	Research	Private Consulta-tion	Adminis-tration	Other
1 - 10%	2	23	13	18	1	5
11 - 20	2	10	12	4		3
21 - 30	5	3	6	1		3
31 - 40	3	2	4			4
41 - 50	10	1	4			
51 - 60	11		1			1
61 - 70	9					
71 - 80	9		1		1	4
81 - 90	3					
91 - 100	3		1			1

b. Research Projects. Four dimensions of faculty research projects were examined:

i. type of research projects conducted by faculty;

ii. source of funding for projects;

iii. amount of funding;

iv. involvement of other departments, groups, agencies, etc.

These dimensions are discussed below.

i. Type of Research. The Survey Instrument requested that programs list research projects being carried out by program faculty. The programs did list those projects for which faculty were principal investigators; however, there is no indication as to whether this represented the entire range of research activities for individual faculty. At a minimum, these projects represent the major research activities in the program.

There was a total of 75 projects in 14 programs; ranging from one to fourteen projects per program. The projects were allocated to one of three broad categories: Health Research, Management/Administrative Science Research, and Behavioral/Social Science Research. Each of the three broad categories was then subdivided into approaches/sciences/disciplines (see Table VII). There was no heavy emphasis on any disciplines. Faculty research was also categorized according to the health services research categories of Flook and Sanazarro[5] as shown in table VIII. Seven of the fourteen areas encompassed 87% of all faculty research. Finally, research was analyzed according to administrative function/problem areas, depicted in table IX. Four of 13 areas - managing change, developing information systems, health care quality assurance and cost control - accounted for 64% of all faculty research projects listed.

TABLE VII

FREQUENCY DISTRIBUTION OF FACULTY RESEARCH
1974-75
BY DISCIPLINE

Category	No. of Theses	Percent
A. Health Sciences Research		
Health Services Organization (U.S.)	4	5.3%
Patient Care Practices	2	2.7
Preventive and Social Medicine	2	2.7
Mental Health Care	1	1.3
Epidemiology and Human Ecology	1	1.3
Environmental Health	0	0
Cross National Study of Health Systems	6	8.0
subtotal	16	21.3
B. Behavioral/Social Sciences Research		
Organizational Theory, Behavior and Development	3	4.0
Program Evaluation	5	6.7
Health Economics	7	9.3
Education/Communications	3	4.0
Health Politics/Political Science	3	4.0
Organizational Psychology/Social Psychology	3	4.0
Planning, Forecasting	1	1.3
Human Services	3	4.0
Medical Sociology/Anthropology	3	4.0
Health Law	0	0
Community Organization/Development/Participation	6	8.0
subtotal	37	49.3
C. Management/Administrative Sciences Research		
Quantitative Methods/Operations Research	5	6.7
Financial Management	6	8.0
Personnel Management	2	2.7
Information/Computer Sciences	6	8.0
Marketing	1	1.3
Miscellaneous	2	2.7
subtotal	22	29.4
total	75	100.0%

TABLE VIII

FREQUENCY DISTRIBUTION OF FACULTY RESEARCH
BY HEALTH SERVICES RESEARCH CATEGORY
1974-75

Category	No. of Theses	Percent
Organization and administration of health services - private and public sector	17	22.7%
Evaluation and quality	8	10.7
Economics, costs and financing	8	10.7
Health manpower	8	10.7
Health facilities	1	1.3
Social and behavioral aspects of health care	8	10.7
Utilization of health services	7	9.3
Health services technology	9	12.0
Nursing health services research	1	1.3
Pharmacy related health services research	0	0
Dental health services research	0	0
Research methods	3	4.0
Emerging concepts of health services research	1	1.3
Miscellaneous	4	5.3
	75	100.0%

*From Flook and Sanazaro, Health Services Research and R & D in Perspective, Ann Arbor: Health Administration Press, 1973.

TABLE IX

FREQUENCY DISTRIBUTION OF FACULTY RESEARCH
BY CATEGORIES OF ADMINISTRATIVE FUNCTION/PROBLEM AREAS
1974-75

Category	Number of Theses	%
A Managing/coping with/effecting organizational change/growth/innovation	19	25.3
B Assessing health care needs; planning and setting priorities for health services	2	2.7
C Developing an information base for and participation in decision-making	12	16.0
D Moderating costs/assuring efficient operations/ financial management	8	10.7
E Assuring organizational public accountability; creating an ethical environment with concern for patient, employee, and community health	2	2.7
F Developing effective interprofessional communications/ working relationships	0	0
G Managing personnel-related activities/labor relations	3	4.0
H Exercising leadership for evaluating and assuring program effectiveness, quality health care	9	12.0
I Keeping up with and impacting on legislation and public policy	2	2.7
J Interfacing/coordinating with other public and private health care interests/organizations	6	8.0
K Promoting and maintaining positive public relations and citizen/community involvement	5	6.7
L Continuing personal growth and development to improve management ability	2	2.7
M Miscellaneous	5	6.7
	75	102.9

TABLE X

FUNDING SOURCES FOR RESEARCH PROJECTS

Source of Funding	Number of Programs Funded by Source
Federal:	
Department of Transportation	1
Social Security Administration	3
Office of Economic Opportunity	1
Department of Health, Education, and Welfare	10
State:	
Office of Planning and Evaluation	1
State Council on Higher Education	1
Universities:	8
Foundations:	
Carnegie Foundation	2
Robert Wood Johnson Foundation	2
Kellogg Foundation	1
Iowa Medical Foundation	1
Ackell Hall Foundation	2
A.D. Williams Foundation	1
Hospitals	2
Associations	
American Medical Association	1
Blue Cross Association	1
Association of American Medical Colleges	1
American Hospital Association	1
Other	7
	47

Source of Funding (Raw Data). In addition to the sources listed in the table, the "other" category includes:

1. Population Council
2. U.S. Chamber of Commerce
3. Virginia Regional Medical Program
4. Agency for International Development
5. Smithsonian Institution
6. Wisconsin RMP
7. " "

ii. Source of Funding. Funding sources for major research projects included universities, local, state and federal agencies, private foundations, professional groups, hospitals and a variety of private groups. Table X provides categorization of the several funding sources.

iii. Amount of Funding. The amount of funding per project ranged from no funds to $1,000,000. It is interesting to note that 28 projects (37%) were listed as having no funding to carry out research activities. This could indicate several possibilities: a) the data was incomplete, b) the nature of the project was such that no funding was necessary, c) faculty may have personally borne the costs of research.

Table XI describes the level of support for funded projects.

TABLE XI

LEVELS OF RESEARCH SUPPORT

Amount of Funding	Number of Programs
$ 1 - 9,999	15
10,000 - 19,999	6
20,000 - 29,999	3
30,000 - 39,999	3
40,000 - 49,999	2
50,000 - 59,999	
60,000 - 69,999	
70,000 - 79,999	2
80,000 - 89,999	1
90,000 - 99,999	
100,000 and above	12
minimum funds	3
	47

iv. Involvement of Other Departments, Agencies, Etc. Twenty-five projects (33%) indicated that other departments or units were involved in the particular research project, suggestions, interdisciplinary collaborations. Within the 25 projects, 16 listed involvement with one other unit, seven listed involvement with two units and two projects listed involvement with three other units.

Collaborative efforts were generally undertaken with other departments in the same university. In a few instances, however, interdisciplinary arrangements were made with other universities, hospitals, state agencies or non-governmental groups. Table XII provides a list of interdisciplinary units.

TABLE XII

OTHER DEPARTMENTS, UNITS INVOLVED IN RESEARCH

Other Departments, Units	Number of projects interacting with the department/unit
1. University Units	1
Biometry	1
Health Computer Sciences	1
School of Dentistry	1
Pediatrics	1
Preventive Medicine	1
Obstetrics/Gynecology	1
Medical School	4
Industrial Engineering	1
Business	3
Psychology	1
Sociology	1
Economics	1
Political Science	1
School of Nursing	2
Health Systems Engineering	1
Computer Center	3
Surgery	1
2. Hospitals	2
3. Other Universities	5
4. Medical Group Management Association	1
5. National Opinion Research Center	1
6. American Sociological Association	1
7. State Health Department	1
	36

5. Required Research Courses For Students. The curricula in the 15 programs were examined to identify which research courses were required and the content areas of those courses. The research courses included Quantitative Methods, Biostatistics/Statistics, Evaluation, Research Design/Methodology, Operations Research and Systems Analysis. Each will be discussed in terms of the number of programs requiring the particular course and the content of that course.

a. Quantitative Methods. Six programs required at least one course in quantitative methods. Specific content areas included modelling, linear programming, matrix algebra and forecasting techniques.

b. Biostatistics/Statistics. Nine programs required at least one course in this area. The course content areas covered sampling, probability, measurements of central tendency, distributions, regression/correlation analysis, inferences and confidence intervals.

c. Evaluation. Only one program required this course. While the content areas were not detailed, the course discussed topics such as role of evaluation, political aspects, program objectives/activities/criteria/outcomes, evaluation methods/techniques, and research design.

d. Research Design/Methodology. Four programs required one course in this area. The content included design, methodology, hypothesis formulation, terminology, reliability/validity, data collection and sampling.

e. Operations Research. Four programs required an operations research course. Common topic areas in this course include linear programming, forecasting, modelling and optimization techniques. There seems to be a tendency to

use quantitative methods and operations research interchangeably.

f. Systems Analysis. One program required a course in systems analysis. The basic components of this course are a discussion of critical path methods evaluation and review techniques, and queuing theory.

6. Student Research Project/Thesis Requirement. The 15 programs were examined to determine if students were required to submit a research project/thesis/essay for successful completion of the program. Eight programs (53%) had no such requirement, while seven programs (47%) had this requirement.

Several interesting comments were made by programs requiring an essay/thesis. For example, "...attempts to develop an awareness of the necessity and methodology of administrative research by emphasizing the determination of individual investigation by each student". "The thesis is intended as a mechanism for developing and evaluating the students' skills of problem formulation and identification, analytical research and outcome assessment and reporting."

G. DISCUSSION AND CONCLUSIONS

Traditionally, it has been assumed that quality graduate education can be achieved only in close association with research and, in turn, that involvement in research is intrinsically related to the development and effectiveness of the graduate faculty member. It follows, then, that the quality of a graduate program in health services administration should be related directly to the program's research activities.

This survey of health administration programs has demonstrated a wide variation in amount and focus of health services research components both for students and faculty. Some graduate program faculties view their mission (i.e. professional education) as less dependent upon ongoing research than upon basic knowledge previously acquired. Other faculties subscribe to a traditional view, placing priority upon the recruitment of proven researchers, the attraction of financial support for research, and the establishment of an administrative environment supportive of research. Many faculties appear to fall between these extremes, viewing their own involvement in research as desirable but not essential to providing quality professional education.

We conclude that there is presently no consensus that research is an essential part of health administration education such as there is, for example, in medical education. Nor is there any agreement as to the role research should play in the scheme of health administration education. There are indications that some faculty undertake research more to achieve status with their colleagues and to secure tenure than to acquire knowledge for its own sake and to enhance their teaching ability. This subjective observation is based upon anecdotal information from an emerging field beset with many conflicting pressures. An example of this conflict is the pressure from practitioners in the field and funding agencies to provide more continuing education oriented to a practical level. How many masters can graduate programs, many of which have less than five faculty members, serve, particularly when many are marginally financed and pressed to go "where the dollars are"?

Further, the high value traditionally placed upon research lacks "hard" supporting data in health services administration upon which to plan for its development. How is a productive research effort launched and maintained? The only answer has been "hire the right people who can write successful research proposals and carry them out".

There has never been an analysis of research efforts in graduate programs which would provide guidance.

If the progress of all health services research depends in part upon the development of the university programs as research resources, then a great deal more must be done than merely increase financial support to these programs. The modest analysis described herein demonstrates the need for a major study of the role of health services research in the graduate programs. We learned more about research content from the student's point of view than we expected to learn. We gleaned very little from accreditation documents about the relationship of health services research in general to graduate programs in health services administration. Not only do the programs' research interests coincide with general health services research interests, but the programs have more direct access to the relevant disciplines than do other research units. Yet only a handful of programs are recognized for their research accomplishments. Given the disparity of attitudes toward academic health services research and its relationship to general health services research, it is obvious that something is missing.

It is difficult to identify this missing element with any degree of confidence, despite the urge to do so based on conventional academic wisdom. Before the characteristics of productive research can be identified, we must define the term "productive". Is "productivitiy" measured by the number of papers published or by the amount of new dollars brought in? Or is "productivity" the number of master's students who conduct research projects which teach them first-hand the values of research? If one or more definitions can be agreed upon, then the characteristics of a productive programs can be identified.

Some of the questions to be answered are:

1. In what kinds of settings is health services research most likely to be productive? In particular, in what kinds of schools?
2. Is there a minimum number of faculty members necessary to carry out a successful effort? The answer must consider the total emphasis of the program. Obviously, one faculty member doing full-time research will be more productive than four faculty members each doing research only one-quarter of the time.
3. What organizational arrangements have worked best? How is inter-disciplinary research effectively achieved? Is this a realistic objective? (It has been suggested that concentrating research in one discipline may be more productive than spreading it over several because of the communications investment required of the latter.)
4. What array of disciplines is most conducive to productivity?
5. Is it realistic, as the Accrediting Commission on Education for Health Services Administration suggests, for programs to develop and follow research development plans? What constitutes an effective plan? Can a program commit its faculty to concentrate on a particular research problem or area and if so, what are the costs and benefits of doing so?
6. Can students pursuing a professional degree be involved in faculty research in a meaningful way? If the research is done by the faculty, how can it be organized for student involvement?

These are some of the basic questions stimulated by this brief survey. An appropriate study to reveal the answers is necessary before graduate programs can be expected to make a major commitment to health services research.

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APPENDIX A
STUDY SAMPLE OF 65
GRADUATE PROGRAMS IN HEALTH ADMINISTRATION

Graduate Program in Hospital and Health
School of Community & Allied Health
University of Alabama - Birmingham
University Station
Birmingham, Alabama 35294

Division of Health Services Administration
13-103 Clinical Sciences Building
The University of Alberta
Edmonton, Alberta, Canada T6G 2G3

Center for Health Services Administration
College of Business Administration
Arizona State University
Tempe, Arizona 85281

Army-Baylor Program in Health Care
Academy of Health Sciences, USA
Fort Sam Houston, Texas 78234

Health Care Management Program
School of Management
Boston University
685 Commonwealth Avenue
Boston, Massachusetts 02215

The University of British Columbia
Health Sciences Centre
Department of Health Care and Epidemiology
Faculty of Medicine
Vancouver 8, British Columbia
Canada

Graduate Curriculum in Hospital Administration
School of Public Health
University of California - Berkeley
410 Earl Warren Hall
Berkeley, California 94720

Program in Hospital Administration
Division of Health Services and Hospital Administration
School of Public Health
University of California - Los Angeles
Los Angeles, California 90024

Graduate Program in Hospital Administration
Center for Health Administration Studies
Graduate School of Business
University of Chicago
5720 South Woodlawn Avenue
Chicago, Illinois 60637

Program in Community Health
Department of Community Health Organization
College of Community Services
University of Cincinnati
Cincinnati, Ohio 45221

Graduate Program in Health Care Administration
City University of New York
17 Lexington Avenue, Box 307
New York, New York 10010

Program in Health Administration
Department of Preventive Medicine and Comprehensive Health Care
School of Medicine
University of Colorado Medical Center
4200 East Ninth Avenue
Denver, Colorado 80020

Graduate Program in Health Services Administration
Columbia University
600 West 168th Street
New York, New York 10032

Sloan Institute of Hospital Administration
Graduate School of Business and Public Administration
Cornell University
507 Malott Hall
Ithaca, New York 14850

Department of Health Administration
Duke University
Durham, North Carolina 27710

Graduate Program in Health and Hospital Administration
J. Hillis Miller Health Center
University of Florida
Box 215 MSB
Gainesville, Florida 32610

Health Management Programs
Division of Health Science & Division of Management
Florida International University
Miami, Florida 33144

CHP Training Program
Department of Urban & Regional Planning
Florida State University
Tallahassee, Florida 32306

Department of Health Care Administration
School of Government and Business Administration
George Washington University
Washington, D.C. 20052

Insitute of Health Administration
School of Business Administration
Georgia State University
University Plaza
Athens, Georgia 30303

Department of Health Services Administration
Harvard School of Public Health
55 Shattuck Street
Boston, Massachusetts 02115

Department of Health Services Administration and Planning
College of Health Sciences and Social Welfare
University of Hawaii at Manoa
1960 East-West Road
Honolulu, Hawaii 96822

Program in Administration of Health Services
School of Public Affairs
University of Houston at Clearlake City
2700 Bay Area Blvd.
Houston, Texas 77085

Health Services Administration
School of Business and Public Administration
Howard University
2345 Sherman Avenue, N.W.
Washington, D.C. 20059

School of Public Health
University of Illinois Medical Center
Chicago, Illinois 60680

Graduate Program in Health Administration
Department of Preventive Medicine
Indiana University Medical Center
1100 West Michigan Street
Indianapolis, Indiana 46202

Graduate Program in Hospital and Health Administration
College of Medicine
University of Iowa
S-517 Westlawn
Iowa City, Iowa 52242

Department of Health Care Organization
Johns Hopkins University
School of Hygiene & Public Health
615 North Wolfe Street
Baltimore, Maryland 21205

Department of Public Health Administration
Johns Hopkins University
School of Hygiene and Public Health
615 North Wolfe Street
Baltimore, Maryland 21205

Department of Health Administration
School of Health
University of Loma Linda
Loma Linda, California 92354

University of Massachusetts at Amherst
Amherst, Massachusetts 01002

Program and Bureau of Hospital Administration
School of Public Health
University of Michigan
Ann Arbor, Michigan 48104

Department of Medical Care Organization
School of Public Health
University of Michigan
Ann Arbor, Michigan 48104

Program in Hospital and Health Care Administration
School of Public
University of Minnesota
1260 Mayo Memorial Building
Minneapolis, Minnesota 55455

Department of Health Care Administration
School of Pharmacy
University of Mississippi
University, Mississippi 38677

Health Services Administration
School of Administration
University of Missouri - Kansas City
Oxford Hall
Kansas City, Missouri 64110

Health, Policy, Planning and Administration
New York University
Graduate School of Public Administration
4 Washington Square North
New York, N.Y. 10003

Department of Health Administration
School of Public Health
University of North Carolina
Chapel Hill, North Carolina 27514

Center for Studies in Aging
North Texas State University
Denton, Texas 76203

Program in Hospital & Health Services Administration
Graduate School of Management
Northwestern University
2001 Sheridan Road
Evanston, Illinois 60201

Graduate Program in Hospital and Health Services Administration
School of Allied Medical Professions
Ohio State University
1583 Perry Street
Columbus, Ohio 43210

Department of Health Administration
College of Health
University of Oklahoma
Oklahoma City, Oklahoma 73104

School of Health Administration
University of Ottawa
545 King Edward Avenue
Ottawa KIN-6N5, Ontario, Canada

Graduate Program in Health Care Administration
University of Pennsylvania
Colonial Penn Center
3641 Locust Walk
Philadelphia, Pennsylvania 19174

Graduate Studies in Health Services Management
School of Medicine - 403 Noyes Hospital
University of Missouri
Columbia, Missouri 65201

Graduate Program in Community Systems Planning and Development
S-258 Henderson Human Development Building
The Pennsylvania State University
University Park, Pennsylvania 16802

Health Services Research and Evaluation
Program in Health Services Administration
Graduate School of Public Health
University of Pittsburgh
Pittsburgh, Pennsylvania 15261

Department of Hospital & Health Care Administration
Saint Louis University
1483 South Grand Boulevard
Saint Louis, Missouri 63104

Graduate Program in Health Administration
School of Public Administration
University of Southern California
Los Angeles, California 90007

Health Services Administration Program
Department of Community and Preventive Medicine
School of Medicine 70
703 Welch Road, Suite G-1
Stanford University
Stanford, California 94305

Graduate Studies in Health Services Administration
Division of Administrative Programs
School of Allied Health Professions
Health Sciences Center
SUNY - Stony Brook
Stony Brook, New York 11790

Program in Health Care Delivery
Maxwell School of Citizenship and Public Affairs
Syracuse University
Syracuse, New York 13210

Graduate Program in Health Administration
School of Business Administration
Temple University
Philadelphia, Pennsylvania 19122

Department of Health Administration
School of Hygiene
University of Toronto
Toronto, Ontario, Canada M5S 1A1

Department of Health Care Administration
Trinity University
715 Stadium Drive
San Antonio, Texas 78284

Graduate Program in Health Systems and Hospital Administration
Department of Health Systems Management
Tulane University School of Public Health and Tropical Medicine
1430 Tulane Avenue
New Orleans, Louisiana 70112

Department of Hospital and Health Administration
School of Allied Health Professions
Medical College of Virginia
Virginia Commonwealth University
MCV Station
Richmond, Virginia 23298

Program in Hospital Administration
Wagner College
Staten Island, New York 10301

Graduate Program in Health Services Administration and Planning
Department of Health Services
School of Public Health and Community Medicine
University of Washington - SC-37
Seattle, Washington 98195

Graduate Program in Health Care Administration
Washington University School of Medicine
724 South Euclid Avenue
Saint Louis, Missouri 63110

Program in Health Services Administration
University of Wisconsin
Center for Health Sciences
1225 Observatory Drive
Madison, Wisconsin 53706

Program in Health Services Fiscal Management
Graduate School of Business
University of Wisconsin
1155 Observatory Drive
Madison, Wisconsin 53406

Graduate Program in Hospital and Health Administration
Xavier University
Victory Parkway
Cincinnati, Ohio 45207

Program in Hospital Administration
Department of Epidemiology and Public Health
School of Medicine
Yale University
60 College Street
New Haven, Connecticut 06510

Program in Public Health Administration
Division of Health Services Administration
Department of Epidemiology and Public Health
School of Medicine
Yale University
New Haven, Connecticut 06510

APPENDIX B

STUDY SAMPLE OF 15 PROGRAMS SELECTED FOR IN-DEPTH ANALYSIS

Locus	Program
School of Public Health	University of California - Berkeley* University of California - Los Angeles* Columbia University* University of Minnesota* University of North Carolina
School of Medicine	University of Colorado* University of Missouri*
School of Allied Health Professions	State University of New York at Stony Brook* Virginia Commonwealth University*
Graduate School	Duke University*
Graduate College and College of Medicine	University of Iowa*
School of Public Administration	New York University
School of Business	University of Chicago*
School of Business and Public Administration	Cornell University*
School of Business and Medicine	University of Wisconsin*

* Accredited at the time of survey by the Accrediting Commission on Education for Health Services Administration, Washington, D.C.

APPENDIX C - MASTER'S STUDENT THESIS TOPICS

HEALTH MANPOWER

Physician's Assistants -- Future or Failure
Employee Satisfaction: An Indication of Union Interest
A Personnel Policy Manual for X Nursing Home
The Promotion of Employer-Sponsored Pre-retirement Preparation Programs
Union Organizational Efforts in a Nonprofit General Hospital
Physician Employment Within the V.A.
An Analysis of the Turnover Problem in the Business Office At X Hospital
Employee Response to a Hospital Merger
Acceptance and Utilization of Physician Extenders at X Medical Center
A Study: Does Sick Leave Absence Increase as Distance of Employee Residence From X Hospital Increases?
Guidelines for Developing a Management by Objectives System at X Hospital
Predicting Tenure of Employment in a Large Hospital System
Age, Status, and Admission Analysis of X Medical Center Medical Staff
A Staffing Analysis of a Long Term Care Facility
Continuing Education Program for Department Heads of X and Y Hospitals
Effective Manpower Allocation for Primary Care Services at X Clinic
An Industrial Engineering-Type Study of Physician Utilization at X Hospital
Education for Nursing Home Administrators: A Pattern for the Future
Emergency Medical Services: Assessment of Educational Needs and Resources
A Methodology for Assessing Those Factors Which Cause Employees to Unionize
A Discussion of Health Manpower Planning Models
Seniority Preference in Promotions by State and Local Governments Under Title VII
Task Performance by Social Health Technicians in Relation to Health Care Services
Narrowing the Contours of Government Employee Tenure: A Constitutional and Organizational Analysis
Sex Discrimination in Employment Under Title VII of Civil Rights of 1964
Executive Development Program
Hospital Factors that Influence Hospital Selection by Physicians
Evolution of the Executive Role in University Teaching Hospitals
Routine Nursing Salary Cost Differential
The Relationship Between Selected Demographic Variables and the Choice of Family Practice as a Resident's Specialty
Task Conflict in a Community Health Program
Costs and Benefits of the Family-Practice Residency Program at X Hospital
A Study of the Unit Management Program at X Hospital
An Evaluation of Supervisory Training Programs at X Hospital
An Evaluation of the Effectiveness of the Employee and Medical Staff Publications at X Medical Center
Manpower Utilization in the Dietetic Service of X Hospital
Proposal for a General Orientation Program for All New Personnel at X Medical Center
A Study to Develop a Career Program at X Hospital and Medical Center
Determining the Most Effective Utilization of Volunteers in the Nursing Department At X Medical Center
Determining Feasibility of Establishing a Generalist Technologist Postition in Military Satellite Clinics

Health Manpower - cont.

A Study of Employee Selection Procedures at X Hospital
Determining the Optimum Arrangement for Administrative Support to the Professional Departments at X Medical Center
A Study of Hospital Housekeeping Turnover
Integration of Institutional Master Plans with Areawide Health Plans
A Comparative Study of the Physician's Associate and The Nurse Practitioner
Using Paramedics
Role of Foreign Medical Graduates
Roles of Directors of Volunteers in the General Teaching Hospitals Affiliated With X University
Appointment of Specialists to Medical Staff of Hospitals

Measurement of Job Satisfaction among Health Care Professionals
A Survey of the Academic Orientation of the Professional Staff of Selected Areawide Comprehensive Health Planning Agencies
An Analysis of Employee Performance Appraisal Systems in X State's Hospitals
The Timing of Management Decisions During a Union Organization Attempt
Managerial Attitudes and Philosophies in Selected Medical Group Practice Settings
The Application of USAF Medical Manpower Standards to Three Civilian Hospitals
Hospital Employee Productivity
Absenteeism in a Large Hospital - Monthly Profiles and Comparative Monthly Studies
A Comparison of X Center to Modern Staffing Standards
Personnel Development by Adult Educational Training
A Study of the Sick Leave Policy for Hourly Employees at X Hospital
A Full-time Geographical Physician Department Chief - A Facilitator of Demand For Hospital Services
A Security Manpower Study for An Urban Teaching Hospital
Staffing Problems of a Small Hospital Emergency Service

A Study of Sick Leave Utilization at X Hospital

HEALTH FACILITIES

An Analysis of the Role of the Extended Care Facility in the Acute Hospital Setting
A Laboratory Efficiency Improvement Plan
The Formulating of A Hospital Plan
Survey of Solid Waste Disposal Systems in X Hospital
A Space Utilization Study
Shared Services and the Regionalization of the Health Care Delivery System
Relocation of Hospital Services: Allocation of Vacated Space
An Analysis of a Food Service Operation and Resident Group in a Health Facility
A Study of a Senior Citizen Day Center Program
Time-Saving Benefit to Patients from Clinic Appointment System at X Hospital
Feasibility of a Surgical Endoscopy Laboratory
Shared Laundry Services Feasibility Study
Providing Health Services to Patients Who Have Outpatient Surgery
In- Hospital Screening and Referral of Blue Cross Patients for Home Care
An Evaluation of an Alternative University Pre-Entrance Health Assessment System
The Implementation of the PSRO Section of the P.L. 92-603
The Development of a Coronary Prognostic Index for Mobile Coronary Care Unit Patients
Determining Methods of Improving the Linen Supply System at X Hospital
Determining the Provision of Durable Medical Equipment to Persons Eligible for the Uniformed Services Health Benefits Program
A Study to Evaluate the Existing Emergency Medical Services Communications Network and Determine the Requirements for an Integrated Emergency Medical Services Communications System for X City
A Study to Recommend Improvement to the Ob-Gyn Clinic Facility at X Medical Center In Conjunction With Its Relocation
Determining the Site and Layout for Possible Implementation of An Amosist Program At X Hospital
A Feasibility Study of a Five-Day, Medical-Surgical Unit in a General Acute Hospital
Some Approaches to the Program of Primary Pediatric Clinic Location Within X County
A Review and Evaluation of the "Hotel Areas" of a Community Hospital
The Centralization and Coordination of Hospital Outpatient Services
Developing a Plan of Relocation for One Function and Equipment to a New Facility
An Analysis of the Amount of Space Dedicated for One Use in Hospitals
Feasibility of and Implementation Procedures for Selling Laundry Services to Nearby Hospitals
Hospital Regulation as A Public Utility
Alcoholism Unit in General Hospital
Alcoholism Treatment in a Specialty Unit
Development of a Facilities Maintenance System for An Indian Reservation
The Development of A Facility Disposal System for X State Region
Role of University Hospital in Primary Care
An Evaluation of the "Firm System" of Graduate Education in Internal Medicine
Accommodation for the Elderly: The Extension to the Jewish Home for the Aged
Alternative Sources of Biomedical Engineering Services
The Alienating Effects of Hospitalization on the Institutional Patient
The Development Function in Hospitals: Some Answers to Questions
A Planning Assessment of Standards and Criteria Concerning the Determination of Hospital Bed Need
Shared Services
Analysis of Solutions for Increasing Productivity in X Hospital's Laundry

Health Facilities - cont.

The Psychiatric Emergency Service
Recommendations for the Implementation and a Study of the Financial Feasibility for Physical Medicine and Rehabilitation for Medical Center Hospitals
The Feasibility of a Laboratory Service for Private-Referred Outpatients
A Cost Study of the Ambulatory Care Program in A Veterans Administration Hospital
Internal Patient and Materials Transportation at the General Division, X Medical Center
Current and Alternative Systems of Transport at X Hospital
Inpatient Falls at a Major Teaching Hospital
Initiation of an Eight Bed Burn Center
Determining Bed Requirements for Special Care
Evaluating the Bacteriological Effectiveness of Certain Floor Cleaning Techniques Through Surface Sampling
Operating Room Remodeling and Expansion
Development of a Patient Transportation Department
Guidelines for the Establishment of a Day Surgery Unit Within a General Care Hospital
The Movement and Closure of a Hospital
The Sign System for X Hospital
A Proposal For Association Effectiveness
Space Utilization Study of the Pediatric Project - X Hospital
Minimal Care Unit Feasibility Study
Veterans Administration Hospitals Consolidated Laundry
An Informational Model for Long-Range Planning Development of Community Hospitals
Proposal for Office of Human Development Transportation Demonstration Program

ORGANIZATION AND ADMINISTRATION OF HEALTH SERVICES:

PUBLIC AND PRIVATE

Preparing a Health Facility for Labor Union Activity
Determining if X Medical Center will Join X State's Professional Liability Insurance Association
The Development of the Health Service Area and the Health Systems Agencies
Reconciliation of the Role, Function and Use of Clinical Resources of a Medical Center for Education and Training
Feasibility of Providing Professional Child Care Services for Employees
Implemenation of Public Law 93-641
Proposed Solution to the Multiplicity of Problems at X Hospital
Management Development in Hospitals: Key Organizational Components
Trends in General and Professional Liability Insurance for Voluntary Non-Profit Hospitals
V.A. Hospital Director's View of Health Planning Legislation
Organizational Climate and Structure
The Effects of a Hospital Emergency Room on Selected Inpatient Variables
Community Mental Health Advisory Boards
Public Law 93-641 and its Effect on Private Medical Groups
Forecasting in Health Care Settings
"Triaging" in a Community Mental Health Center
Methodology for Human Resource Accounting in a Hospital Department
Health Maintenance Organization from a Marketing Perspective
Personnel Management Evaluation in a Hospital Setting
Hospital Decision-Making: Realignment of Patient Service
The Growth and Development of the Mental Health System in X State
Development of a Primary Care Group Practice Program
Physician Membership on Hospital Governing Boards: Issues and Perspectives
The Feasibility of Consolidation of A Veterans Administration Hospital's Open Heart Surgical Programs
Participation of Physicians on Hospital Governing Boards
Developing a Management Reporting System for a Psychiatric Hospital
Case Study of An Attempt to Create a Medical School/Union Sponsored HMO In an Inner City Setting
Case Study of Health Administration Systems Design and Analysis
Introduction to the Management of Mass Breast Cancer Screening
Designing Patient-Centered Health Education Programs
The Decentralization of Mental Health Services: A locational Approach to Public Choice
A Case Study of the Muscatine Migrant Committee
The Role of In-House Legal Counsel in Short-Term Health Care Institutions
Knowledge of Hospital Board Members and Their Effectiveness
Investigation into the Desirability of Developing a Doctoral Program in Health Administration
The Delegation of Managerial Functions to First-Line Management Positions
Eliminating a Two Class System for Providing Ambulatory Care at An Urban Teaching Hospital
Management of Change in One Department of a Medical Center
The Administrative Problems in Implementing an Emergency Medical Service System
Shared Health Services
Challenge Inside the Hospital Board of Trustees, Medical Staff, and Administration
Selected Topics Focusing on Hospital Governing Boards
Innovative Health Care for the Diabetic at X Hospital
Board of Directors, Medical Staff, Administration: Changing Relations
A Multi-Institutional Systems Analysis Within the Context of Federal-State Sharing

Organization and Administration of Health Services - cont.

Role Expectation for the Hospital Administrator and Perceived by Board and Staff
Application of Direct Patient-Care Personnel Planning Model in an Ambulatory Facility
Scheduling Emergency Bed Admissions for Expansion Purposes in a Typical Hospital
Effect of Selected Decision Variables upon Equipment and Personnel Utilization and Average Turn-Around Times for Test Results in a Clinical Chemistry Laboratory
A Comparative Study of Centralization in Three Clinical Chemistry Laboratories
The Evolution of the Developmental Disabilities Act
The Advisory Role of the Bureau of Health Education in Health Education
Direction for Community Health Planning: Role Definition of Hospitals by Diagnostic Case Mix
The Legislative History of the PSRO Bill
A Case Study in the Coordination of Donor Activities with National Government Health Services
The Use of the ADL Index in a Multi-Level Long Term Care Facility
Boundary Management Issues in a Drug Addiction Triage Facility: Impact on Client Services
Expansion Possibilities for the Torrington Area Health District
A Study to Determine the Feasibility of Implementing a Day Surgery Program at X Hospital
The Extent of Institutional Planning Being Accomplished by Health Care Activities Within X Region
The Administrative Organizational Structure of X Hospital
Causes of Hospital Malpractice and Analysis of how A, B, C, and D Hosptials are Organized to Provide for Patient Safety in the Surgical Suite
Feasibility of a Community Based, Hospital Sponsored, Multiple Industry Occupational Health Program
A Quantitative Approach for Scheduling Hospital Admissions
A Survey of the Treatment Conditions and Administrative Environment in Eight State Mental Retardation Institutions
A Study of the Nursing Home Industry in X Region
Problems in Receiving Approval From the Planning Agency
Evaluation of a Management by Objectives Program
Consolidation of Departments to Increase Efficiency in the Admitting Process
Hospital Organizational Structures
Organizational Development and Communication Between Organization Units
A Preventive Health Education Program
Transition of B Agencies to HSA with Respect to Manpower Plans
A Feasibility Study of Shared Services Programs
Institutional Long-Range Market Planning
Development of a Central Distribution System
Regional Health Planning - Learning From the Past
New York State Labor Relations Law
Appointment System
Interstitial Space as an Alternative in Building Design
The Development of a Comprehensive Health Service Program in X City
Rural Health Care Delivery Systems with Emphasis on the Health Maintenance Organization Concept
A Management Information System Design for Ambulatory Health Care Systems
Rationale for Building More NHC's in X Area
The Dynamics Involved in the Transition of a NHC in X City to a HMO
Development of an Education and Training Program for an Ambulatory Care Center in a Low Income Area
A Proposed Organization Structure for an Air Pollution Control District

Organization and Administration of Health Services - cont.

The Role of the Hospital Administrator
Case Study: A Hospital Merger
Primary Care Program
Department Head Utilization of Information Feedback
Relationship of the University Medical School and the Affiliated Teaching Hospital
Patient Representatives in the Hospital
Management by Objectives: An Experimental Application in a Hospital Setting
An Analysis of Ambulatory Health Programs
Developing an Environmental Health and Safety Program
A Systems Analysis Methodology for Emergency Medical Services System Planning
The Development of a Quality Control Program for a Hospital Ancillary Service
Long Range Planning in a Non-Profit General Community Hospital
Complex Decisions in Health Organizations
Analysis of the Distribution of Hospital Beds and Physicians in X City
A New Method for Planning an Ambulatory Care Facility
The Role of the Mental Hospital in the Provision of Services to the Adult Psychotic Patient by a State Government
The Role of Local Boards in Local Health Administration in X State
Formation and Administration of Multicounty Health Districts
Cigarette Controls
The Uniform Alcoholism and Intoxication Treatment Act
Management Information for Local Health Departments
The Administrator Role: Management of Minority Culture Health System by Anglo Admistrators
Legal Approaches to Correction of Public Hazards
A Case Stude of a Small Public Health Agency Without a Director
The National Health Policy: Past, Present and Future
Hospitals and Hospital Management Engineering
A Feasibility Study for a Stroke Management Program
Study and Use of Work Measurement and Simulation for an Investigation of Operating Room Problems
The Development of an Ambulatory Surgery Program for X Area's Hospitals
A Feasibility Study of the Development of Psychiatric Services at X Hospital
Feasibility of Starting a Family Practice Residency Program at X Hospital
An Analysis of Downtime in the Operating Room at X Hospital
A Study of Patient Scheduling Systems in the Transport and Radiology Department at X Medical College Hospitals
Control of Chargeable Supplies at the Medical University Hospital
A Treatment Procedure Manual for the Emergency Medical Technician-Ambulance in Field Situations
Administrative Issues for a Third Party Prescription Drug Benefit Plan
Interpersonal Communications in Hospitals and Their Relations to Administrative Effectiveness
The Effects of Job Structure on the Satisfaction Levels of Personnel Professionals in Twenty-four Veterans Administration Hospitals
PSRO Data Policy
Establishment of a Patient Coordinator Program at X Hospital
Consensus Decision-Making and Long-Range Planning
A Study to Determine the Status of H alth Education in A Public School System
Primary Health Care: Community Profile and Index of Medical Underservice

EVALUATION AND QUALITY OF HEALTH SERVICES

A Study of a University Health Service
The Health Evaluation Program at X Medical Center
The Impact of PSRO Criteria on the Volume of Laboratory and X-Ray Services
A Study of Relationship Between Selected Performance and Financial Indicators in Geographically and Programmatically Related Hospitals
The Satisfaction of Patients under the Care of Family Practice Physicians
The Impact of Activities Programs in Nursing Homes
An Analysis of the Inpatient and Outpatient Workload of a Radiology Service in X Hospital
PSRO Costs at X Hospital
An Evaluation of X County Tuberculosis Control Program
Multiphasic Screening: An Analysis
The Potential of Health Hazard Appraisal as a Preventive Health Behavior Technique
Systematic Review and Scientific Evaluation of Medical Care in Teaching Hospitals In X Country
Description and Evaluation of an Estimated Day of Discharge Program at X Hospital
Developing an Ambulatory Care Audit
Implications of Ambulatory Surgery
Historical Development and Evaluation of the Health Maintenance Organization
Impact of Implementation of a Mandated Concurrent and Retrospective Review Program
Ambulatory Surgery
The Development of a Utilization Review Program in an Acute General Hospital
Predicting Patient Loads for Family Planning Clincs Using Facility and Staffing Variables: A Regression Analysis
The Application of a Linear Programming Model in Planning and Evaluating Graduate Medical Education
The Impact Index: A Methodology for Assessing Mental Health Consultation
Evaluation of the Local Health Services Program of X State Health Department
Application of the Disease Intervention Model to Process Evaluation in Venereal Disease Control
A Model and Simulation of Medicare Reimbursement Based on Case Mix
Practical Application of Preventive Health Methodology in a Preventive and Group Medical Practice
A Prospectus for Planning, Implementing and Evaluation of a College of Health Sciences
An Assessment of the Delphi Methodology in the Health Field
Characteristics of Emergency Room Admissions by Hospital Service
Case Study of Change in Primary Hospital by Group Health Association, Inc., X City
The Coordination of Residential Services for the Mentally Retarded in X City
The Source of Data for Health Planning and Evaluation in X Country
A Study of a Coronary Care Unit
A Review of the Internal Control Procedures at a Hospital Emergency Center
A Study to Evaluate and Recommend Methods for Improving the Preadmissions Process at X Hospital
An Evaluation of the Effectiveness and Efficiency of Nurse Triage and Patient Registration Procedures at X Hospital
A Study of the Patient Accountability System of the Mental Health/Mental Retardation Center
A Survey of the Medical Care Evaluation System at X Hospital
A Study to Evaluate an Employee Health Service Program
An Investigation of the Potential Effects of Preadmission Testing for Selected Classes of Elective Surgical Admissions at a Community Hospital
Activities Participated in by Residents of a Long Term Care Home

Evaluation and Quality of Health Services

Prime Characteristics in Selecting one HMO Over Another
Measures Which Hospital Management Can Take to Combat Medical Malpractice and Prevent Patient Injury In the Hospital Setting
The Patient's Bill of Rights: Implications for the Hospital
A Review of the Problems of Nosocomial Infections and Recommendations for Control
Quality Control in O.P.D.
Revising Disaster Manual
P.S.R.O.
P.S.R.O. - M.C.E.
Effects of Waiting Time on Clinic Patients
Alternative Model for Education of Health Administrators
Hemodialysis and Kidney Transplant Programs
Effects of Outpatient Surgery
Ambulatory Care Evaluation
A Comparison of Two Sampling Methods for Classifying Blood Pressure Control in Hypertensive Patients
Utilization of Primary Care Services for Social or Emotional Problems
A Revision of the Quality Review Program at X Hospital
The Impact of Day Surgery on In-Patient Stay
Quality of Care Evaluation in Skilled Nursing Facilities Using Bed Sores as an Output Indicator
Management of Severly Defective Infants: The Dilemmas of Withholding Care
PSRO's and Quality of Care: The Impact of the Staff of Community Mental Health Centers in X State
Hospital Liability for Physician Malpractice: A Public Health Perspective
Use of Evaluation in Administering Group Homes for Mentally Retarded Adults
Effectiveness in Organizations Service Public Needs
The Concept of Primary Care
Pastoral Care Services: A Comparative Study By Patients and Nurses
The Effect of Pre-Admission Testing on the Length of Stay of Elective Surgical Patients
Implementation of a Pre-Admission Testing Program
Professional Standards Review Organizations
Descriptive Analysis of an Emergency Medical Training Program in a Small Foreign Country
Construction and Administration of an Instrument to Measure Patient's Satisfaction at X Health Center
Will PSRO Succeed in X and Y Counties
An Analysis of Patient Flow in a Clinic
An Analysis of a Health Care Center
Utilization, a Financial Screening Mechanism, and a Graduated Discount Scale in an Outpatient Clinic
An Evaluation of the Progress of Neonatal Intensive Care at X Hospital Since the Employment of a Part-Time Neonatologist
An Evaluation of the Utilization Review Program at X Hospital
Analysis of Neonatal Charge Data
Efficacy of Community Living Facilities for the Mildly Retarded
A Model for Evaluating the Outcomes of Neighborhood Health Centers
An Evaluation of the Accuracy of the Nursing Process Audit and Its Implications for Quality Care

UTILIZATION OF HEALTH SERVICES

The Use of a Survey to Determine Need for a Retirement Home
A Fight for Life Emergency Air Transportation in a Mountainous Region
Cardiac Catheterization: Impact of Increasing Levels of Service in an Academic Medical Center
The Referral Source of the Emergency Room Patient
The Relationship Between Physician Characteristics and the Length of Stay of Their Patients
A Utilization Review
Hospital Utilization by Emergency Room Admissions
Certificate of Need
Feasibility of Establishing a Renal Dialysis Center: A Demographic Inquiry
Utilization of Hill-Burton Funded Small Hospitals by Type of Control
Hospital Emergency Room Utilization for Nonemergency (Outpatient) Treatment
The Index of Medical Underservice
Use and Demand for Services at a Student Health Service
A Study of Health Care Needs of a Community
A Survey to Determine Students' Knowledge and Source of Knowledge of the Services Available at a Student Health Service
Determining the Effect of Medical Service, Age, and Length-of-Stay on Diagnostic Radiology Demand
A Survey of Health Care Utilization by Families of Students of a University
Factors Associated with Excessive Outmigration for Obstetrical Services by X County Resident
Developing a Model to Establish the Optimum Length of Stay for Selected Diagnosis At X Hospital
A Study to Identify and Analyze Factors Pertaining to Referral of Social Service Patients to X Hospital
A Study of the Impact of a Health Center Upon the Demand for Hospital Beds in X City
Stroke: Pattern of Inter-Institutional Utilization in X City
A Review of Methods of Estimating Hospital Services Population
Analysis of Health Statistics to Determine Health Problems in this Community that Would lead to the Design of Community Based Health Action Programs
Should the Pediatric Department of X Hospital Be Eliminated?
A Five-Year Plan for the Programmatic Development of a Pediatrics Department
Determine Needs for Child Care Services in HMO's
Marketing Strategy for HMO'S to Attract Non-Subsidized Populations
Study of Neonatology Demand
Analysis of Need for New Services
HMO Feasibility
The Application of Hospital Utilization Measures As An Evaluative Technique
Feasibility of Utilizing Hospitals and Rescue Squads for Training Army National Guard
Psychiatric Care Demand of X Hospital
Utilization of Obstetrical Beds
Home Health Care in the Primary Service Area of X Hospital
A Demand and Feasibility Study of Outpatient Surgery at X Hospital
Determining the Feasibility of Placing a Regional Level II Neonatal ICU at X Medical Center
Relationship between Geographic Accessibility and Utilization of Clinic for Disease Detection

ECONOMICS, COSTS, AND FINANCING OF HEALTH CARE

The Effect of Economic Developments in the Decade From 1965-1974 on the Health Care Industry
The Use of Price-Level Accounting for the Maintenance of Hospital Plant Capital
Financial Ramifications of Extravagant Laboratory Tests
Sources of Hospital Capital Financing
A Cost Analysis of Open Heart Surgery
Determining the Debt Capacity of a Voluntary Non-Profit Community Hospital
An Economic Feasibility Study of the Ambulatory Care Services at X Medical Center
Short Stay Surgery: A Financial Study of One Hospital's Program
Clinical Teaching Activity and Clinic Direct Expenses
Impact of Closing Beds in an Underutilized Hospital
Cost Comparison of Institutional and Sheltered Community Living for the Adult Mentally Retarded
The Changes In Productivity of Hospitals that Merge
Costs of Psychiatric Treatment
Program Budgeting in the Outpatient Service of Community Mental Health Centers
Cost Finding in X State's Hospitals
Hospital Budgeting
The Economic Impact of a Sequential Multiple Analyzer on Hospital Laboratories
Analysis of Health Care Consumers' Reported Ability to Afford Health Care
Accounts Receivable Analysis
Public Financing of Indigent Health Care: A Feasibility Study
Survey of Budgeting Processes in Hospitals
A Method to Determine Charges for Selected Intensive Care Procedure Trays
A Cost Analysis of Disposable Serviceware Versus Permanent Serviceware
Establishing Priorities for Capital Equipment
An Attempt to Determine the Economic Viability of Small Neighborhood Hospitals as a Possible Answer to Demands for Community and Consumer Control
The Current Status of Philanthropy as a Source of Financial Support to X State's Hospitals
An Application of Market Segmentation to a Health Maintenance Organization
A Study of Case-Mix Differences, Costs, and Related Variables in Two Hospitals
Ratio Analysis in Hospital Accounting Information
The Financial Impact of Hospital Acquired Infection
A Methodology for the Identification and Characterization of Hospitals Exhibiting Costs Substantially Higher or Lower Than the Mean Cost
Health and the Productive Capacity of the Labor Force
Cost Per Case and Flexible Budgets - An Analysis
Financial and Management Strategies for Reducing Outpatient Deficits
Blood Bank Cost Finding and Analysis
Analysis and Evaluation of Financial Feasibility Studies for Hospital Capital Construction
The Economic Impact of the Emergency Room Upon Hospital Revenues and Costs
A Method for Defining and Measuring Direct Costs Associated with the Provision of Services Within a Physicial Therapy Department
Simulation of a Cash Forecasting Model as an Aid in Evaluating the Need for Working Capital
A Study of the Inpatient Charge System at X Hospital
A Financial Planning Model for HMO's and Organized Group Practices
The Economic Costs of Spinal Cord Injury - An Analysis of Workman's Compensation Claims

Economics, Costs, and Financing of Health Care - cont.

A Study of the Patient Charge System at X Hospital
A Cost Analysis of a Hospital Based Automated Multiphasic Health Testing Program
The Application of Financial and Statistical Ratios to Determine Indicators of Financial Deterioration in Selected Hospitals Within X State
An Investigation of the Causes of Price Variation of Routine Supplies in Selected Hospitals
Econometric Estimate of Administrative Nursing Service Cost Functions in a Hospital System
Controlling the Variable Cost: Hospital Utilization, Emergency Room Care, Specialty Care
Hospital Rate Control and Its Effectiveness
Cost Allocation of Expenses
Sources of Public Or Private Funding for a Growing Social Service Agency
A Review of all "Stat" Procedures
Productivity and Labor Costs: A Contemporary Hospital Problem
Turnover Costs Among Lower Echelon Employees in Hospitals
A Cost-Benefit Analysis of X State's Department of Health Pediatric Otological Diagnostic Clinics
Fiscal Management System for Health Maintenance Organizations
Problems in Comparative Cost Analysis of Special Hospital Services
Cost Finding Project
Surgical Resource Balance
Incentive Reimbursement Plans
Financial Analysis of Medical Clinics
Cooperative Arrangements: Purchasing
The Economic Feasibility of Employing a Medical Equipment Technician
Allocation and Use for Health Purposes
Control of Health Services Cost Through Reimbursement
The Cost Effectiveness of Economic Order Quantities at X Hospital
Lost Charges and the In-House Communication System
The Financial Impact of an Extended Ambulatory Surgery Program
A Study of the Accounts Receivable System at X Hospital
A Cost-Benefit Analysis of Physician Staffing in the Emergency Department at X Hospital
A Cost Comparison of Disposable Versus Reusable Drapes at X Hospital
Input-Output Budgeting
Analysis of Neonatal Charge Data

SOCIO-BEHAVIORAL ASPECTS OF HEATLH CARE

Plan for a Senior Companion Program
Study of the Problems of Retirement Among Nuns
An Analysis of the Patient's Bill of Rights
A Study of Library Use and Reading Habits of Patients in Long Term Care Facilities
A Study of Opinions Regarding Family Practice
Malpractice - A Comparative Study
A Study of Broken Appointments for Pediatric Screening Examinations
Survey of Physicians Attitudes
Demographic Variables of Patient Attitudes Toward Hospital Food Service
Medical Follow-Up Clinic: A Patient Attitude Evaluation
Analysis of a Neighborhood Family Health Center as a Catalyst for Breaking the Poverty "Sickness" Cycle
Participants' Attitudes in Prepaid Group Practice
Physician Acceptance of the Disease Concept of Alcoholism
The Black Medical Student's Perception of the Medical Education Support Program
Reasons for Patients Missing Appointments at X Clinic
An Interpretation of the Perception of Managerial and Supervisory Personnel at 2 Hospitals
Analysis of Patient Initiated Incidents at X Hospital
Tay-Sachs Disease: Knowledge and Attitudes of College Students
An Empirical Study of Patient Satisfaction with Ambulatory Care at an Urban Medical Center
The Development of a State Plan for Children's Services
HMO Amendments of 1975: A Legislative Analysis
Health Education Needs and Interests of the Elderly: Implications for Program Planning
Fertility and Culture in an Eastern Religious Group
Characteristics of Psychiatric Patients and Their Referral at an Emergency Room - A Cross-Cultural Study
A Survey of Attitudes Among Physicians Toward a Freestanding Surgery Center
Marketing the Private Vs. The Public Sector
The Past, Present, and Future Role of Citizen Participation in the a Community
Effects of Outpatient Surgery
Child Abuse Services
An Analysis of the Components of Inpatient Satisfaction
Physician-Patient Understanding and the Health Outcome of the Patient
Pre-Retirement Counselling Programs for Hospital Personnel
Communication with Patients
Family Life Services in Catholic Hospitals
Hospital Governance: Attitude and Activity in Regard to External Relations
Drug Policies as Shortcuts to Social Change
The Changing Navaho Demographic Situation in Family Planning
Caring: The Linking Component
The Attitude Survey: Its Role in Organizational Change
Public and Physician Attitudes Toward the Emergency Services
An Inquiry Into Breast Cancer and Selected Attitudinal Variables

NURSING HEALTH SERVICES RESEARCH

A Primer for Nursing Aides
A Study of the Work Activities of the Head Nurse at X Hospital
Attitudinal Survey of Registered Nurses on the Use of Color at X Hospital
A Study of the Use of Non-Professional Nursing Employees at X Hospital
Effect of a Geriatric Nurse Practitioner Program on Patients in Nursing Homes
Nursing Hour Differential Study Relative to Patient Age
An Analysis of the Management Level of X Hospital's Nursing Service Department
Evaluating Recruitment of Nurses for a Rural State
Primary Nursing and Job Satisfaction: Their Relationship to Nursing Turnover and Absenteeism in the Hospital
The Applicability of X Theory of Job Satisfaction to Registered Nurses in the Hospital
The Triage Nurse: An Alternative Means of Coping with the Increasing Number of Emergency Department Patients
The Attitudes of Nursing Personnel with Respect to the Ward Administration Program at X Hospital
The Legal Implications of the Practice of Nursing: An Introductory Course in Law for the Baccalaureate Nursing Student
Health Services in Transition: Health Personnel Primary Care
A Methodology to be Used in Determining Minimum Nursing Requirements at X Hospital
A Method of Obtaining Better Utilization of Nursing Personnel on the Inpatient Care Units at X Hospital
Establishing Validity in Field Evaluation of Nurse Practitioners
A Technological Study of Nursing Units
An Evaluation of Nursing In-Service Education Programs
Attitudes Toward Nurse Role Orientations in Two Hospital Institutions
Satisfaction of Welfare and Fee for Services Parents in Regard to the Competencies of the Nursing Staff and Management of a Pediatric Department
Effect of Hospital Skilled Nursing Facilities on Lenght of Stay and Associated Cost
Implementation of Nurse Scheduling Algorithm
A Positive Approach to the Nurse Turnover Problem
Nurse Staffing Study at X Hospital
Centralization of Nursing Manpower in X State
Collective Bargaining by Registered Nurses in an Acute Care General Hospital

DENTAL HEALTH SERVICES RESEARCH

Utilizing Research Findings in a Dental Health Education Program
Dental Productivity at a Neighborhood Health Center
A System for Assessing the Quality of a School-Based Dental Program
Organization of a Dental Department
Evaluation of a Preventive Dentistry Program
Impact on the Dental Health Care System of Expanded Duty Dental Assistant
Assessing the Need for Dental Health Education for the Mentally Retarded

PHARMACY-RELATED HEALTH SERVICES RESEARCH

How a Specific Pre-Natal Instruction Course Affected a Group of Women's Use of Drugs During Labour and Choice of Anaesthetic at Delivery
The Use of Prescribed Psychotropic Drugs by Non-Institutionalized Women
Application of a Method of Recording Laboratory Procedures to an Acute Care General Hospital
Reorganization of the Pharmacy Service in an Expanding Hospital
The Applicability of Aspects of the Materials Management Concept to Pharmaceutical Functions in the Community Hospital
Decentralization of Pharmaceutical Services
Pharmacy Services
Attitudes of a Hospital Pharmacy's Directors Regarding Utilization of Hospital Pharmacy Technicians
Description of Roles of the Hospital Clinical Pharmacist in the V.A. System

HEALTH SERVICES TECHNOLOGY

Computer Assisted Instruction in Health Care Administration
Proposal Preparation: An Application for Computerized Axial Tomography
An Administrative Perspective of Clinical Engineering
Predictive Models for Ambulatory Patient Examination Time in the Teaching Clinic Setting
Synthesis and Photochemical Cycloaddition of 5-Acctoacenaphthylene to Cyclopentadiene
The Computerization of a Psychiatric Center's Personnel Records
Feasibility Study of a Department of Bio-Medical Electronics
Development of a Record Retention Program
An Information System for Predicting Future Census, Discharges, and Unscheduled Admissions
Development and Implementation of a Narcotic Control System
An Appraisal of Genetic Knowledge of X State's Pediatricians
A Study of Ultrasound in Obstetrics
Video Tape: Is the Medium for the Message?
Development of an Ongoing Data System at a Women's Health Center
Feasibility of a Single or Multiple Shared Computer Service for a Hospital Association
Evaluation of the Electronic Data Processing System and Recommendation for Effective and Economic Improvements at X Hospital
Study to Develop a Real Time, Manual Utilization Review Mechanism at X Hospital
The Payroll System at X Hospital
Selecting the Best Microfilm/Microfiche System for the Storage and Retrieval of Inpatient Medical Records at X Hospital
Determining the Optimal Method for Storing Inpatient Medical Records at X Hospital
A Study to Determine a Manual Appointment System for a V.A. Center
The Implications of a Computer-Assisted Electrocardiogram Interpretation for Hospitals
A Qualitative Assessment of the Laboratory Unit System
An Informational System for Ambulatory Services
What Information System is Required to Effectively Manage a Hospital?
A Model Medical Record System for Ambulatory Health Care Organizations
Administrative Information System
Development of a Framework for Evaluating Computerized Medical Records
An Examination of the Future Role of Medical Records Staff
An Operations Appraisal of Certain Hospital Functions of X Hospital
A Determination of Need for Computerized Axial Tomography
Developing a PERT or CPM type of Document to Insure an Orderly Progression of Construction, Movement of Offices, Clinics, Programs and People Within a Hospital

RESEARCH METHODS

A Methodology for Determining Physician Profiles
Self-Directed Study in Basic Mathematics as a Preparation for Quantitative Methods
Simulation Study of Major Surgery Services in a Teaching Hospital
Acute Care Bed Need Methodology
Analysis of Cancer Registry
End-Result Measures of Medical Care: Development of a Health Status Index
A Study of the Incidence of Infectious Diseases Among X Population

THE EMERGING CONCEPT OF HEALTH SERVICES RESEARCH

Developing Testing of an Instrument for Assessment and Classification of Patients by Types of Care
The Utilization of Federally Funded Research in Health Administration

MISCELLANEOUS

The Prevalence of Transient Ischemic Attacks in an Elderly Black Population
Mortality from Chronic Obstructive Lung Disease
The Epidemiological, Medical and Surgical Characteristics of Lower Limb Amputations Secondary to Arterial Occlusive Disease: Black vs. White Amputations
The Hospital-News Media Relationship
Survey of the Historical, Legal and Administrative Aspects of Child Abuse
Study of the Parking Requirements at X Hospital
Some Descriptive Comparisons of Two Country's Health Systems

APPENDIX D - FACULTY RESEARCH TOPICS

HEALTH MANPOWER

Potential Job Openings in Health Administration
Health Facilities Manpower Studies
Manpower Planning and Utilization
Hospital Staffing Patterns in Three Countries
Career Patterns in Health and Hospital Administration
Businessman as an Effective Hospital Trustee
Hospital Based Physician Contracts
Personnel Policies of Tidewater Hospital Council

HEALTH FACILITIES

Ambulatory Health Care

ORGANIZATION AND ADMINISTRATION OF HEALTH SERVICES

Feasibility of Enrolling Military Dependents in HMO's
Private Sector Involvement in Health Care Delivery
Feasibility of Universal Emergency Call System in X State
One Country's Experiences in Universal Health Insurance
Evaluation of Health Planning
Evaluation of a State Regional Trauma System
Trends and Policy Issues in Three Countries
Evaluation of Health Planning
Evaluation of X State's Regional Trauma System
Predictors of X Country's Health Policy
Political Considerations in Health Indicators
National Health Policies
Organization Correlates of Primary Care Effectiveness in Group Practice
Management of Group Practice Forms of Health Care Delivery
Hospital Bed Planning
Hospital Organization Structure and Efficiency
Health Facility Mergers
Consolidation of Transplantation and Kidney Dialysis Treatment
Consolidation of OB/Gynecology and Pediatrics

EVALUATION AND QUALITY OF HEALTH SERVICES

Home Health Services Study
Pediatric and Maternity Care
Quality Assurance for Ambulatory Care Programs
Treatment of Psychiatric Illness in Primary Care
Evaluation of Alcohol Safety Activities
Evaluation of Management of Trauma
Evaluation of Health System Alternatives
Impact of Medical Care on Health

UTILIZATION OF HEALTH SERVICES

Home Health Services Study
Differential Utilization of Hearing and Speech Services
National Household Survey of Health Services
Health Services Scarcity
Cooperative Drug Alert Program for the Elderly
International Comparisons of Health Services Utilization
Study of One Country's Health Resources

ECONOMICS, COSTS, AND FINANCING OF HEALTH CARE

Physician Referral Rates
Reimbursement in X Country
Evaluation of one State's Cost Improvement Project
Peer Review and Control of Utilization Costs in Short Term Hospitals
Financial Structure of Community Hospitals in the 1960's
Empirical Analysis of Yield Differential Between Comparable Hospital and Utility Bonds
Setting of Reimbursement Rates for Hospitals in X State
Hospital Cost Containment and M.D. Practices

SOCIAL-BEHAVIORAL ASPECTS OF HEALTH CARE

Medical School/Teaching Hospital Relationships
Effects of Medicare on Low Income Persons
Consumer Reactions to Automated Multiphasic Screening Centers
Psychological Studies of Female Fertility Behavior
Psychosocial Studies of Male Fertility Behavior
Attitudes Toward Physician Assistants
Attitudes Toward PSRO Projects
Alternative Modes of Citizen Participation in Group Practice Decisions

NURSING HEALTH SERVICES RESEARCH

Utilization of Nurses in Ambulatory Care Settings

HEALTH SERVICES TECHNOLOGY

Evaluation of Information Systems
Evaluation of Forecasting Methodologies for Time Series Data
Functional Task Analysis Study
Econometric Models of Psychiatric Hospitals
Cost Effectiveness of Pediatric Screening
Management Information Systems
Use of Set Theory for Data Lease Management and Interrogation
M.D. Data Reduction Techniques Applied to National Health Interview Survey Data
Citation Analysis to Determine Contributions to the Literature of the Group Practice of Medicine

RESEARCH METHODS

Development of an Index of Access to Health Care
Microeconomic Studies of Dentistry
Community Research Program Studies
Evaluation of Forecasting Methodologies for Time Series Data

THE EMERGING CONCEPT OF HEALTH SERVICES RESEARCH

Evaluation of the Technical Quality of Research and Evaluation Projects

MISCELLANEOUS

Development of Undergraduate Curricula in the Allied Health Sciences
Evolution of X State's Hospitals
History of Blue Cross Movement
Migration and Fertility in X Country

HEALTH SCIENCES COMPONENTS

Component Number:		
1	I	MEDICAL TERMINOLOGY
	II	CONCEPTS OF HEALTH
		A. Definition of Health
2		1. Individually focused
3		2. Culturally focused
4		B. Individaul Aspects of Health
5		C. Holistic Views of Health
6		D. Criteria for Health
	III	DISEASE PERSPECTIVES
		A. Definitions
7		1. Generic
8		2. Differing Perspectives
9		B. Disease Categorization
10		C. Extent and Distribution of Disease - U.S.
11		D. World Disease Patterns
12		E. The Economic Impact of Disease
	IV	DETERMINANTS OF HEALTH AND DISEASE (ECOLOGY OF HUMAN DISEASE)
13		A. General Concepts
14		B. Personal, Behavioral and Social Characteristics
15		C. Environmental and Life Conditions
	V	MEASURING HEALTH AND DISEASE
		A. Measures
16		1. Of health
17		2. Of disease
18		B. Sources and Methods
19		C. Uses of Measures
	VI	THE INTERVENTION PROCESS (SEE ALSO MEDICAL SOCIOLOGY)
		A. Inputs
20		1. Seekers of care
21		2. Providers of care
22		3. Biomedical knowledge
23		4. Technology
		B. Process
24		1. Self-care intervention
25		2. Health promotion and primary prevention
26		3. Secondary prevention of disease
		4. Medical intervention
27		a. general
28		b. assessment and diagnosis
29		c. treatment and rehabilitation
30		d. institutional intervention
		C. Outcome
31		1. Assessment of Structure
32		2. Assessment of Medical Care Process
33		3. Assessment of Outcome/Impact

BEHAVIORAL SCIENCES

Component Number:		
	I	ORGANIZATIONAL PSYCHOLOGY AND BEHAVIOR
34		A. Organizations as Systems
35		B. Motivation
36		C. Cognition/Perception
37		D. Selection/Recruitment
38		E. Socialization/Professionalization
39		F. Career Planning and Development
40		G. The Design of Work
41		H. Incentive Systems
42		I. Interpersonal Relations/Conflict
43		J. Leadership/Supervising Styles
44		K. Group Dynamics
45		L. Inter-group Relations/Conflicts
	II	ORGANIZATION THEORY
46		A. Definition of Organization Theory
47		B. Organization Goals
48		C. Division of Labor/Differentiation
49		D. Integration, Coordination, and Control Mechanisms
50		E. Design Contingencies
51		F. Interorganizational Networks
	III	APPLIED BEHAVIORAL SCIENCES (SEE ALSO ORGANIZATION PSYCHOLOGY)
52		A. Developing and Managing Organization Goals
53		B. Managing the Organizational/Environmental Interface
54		C. Diagnosing Organization Effectiveness
55		D. Developing Organization Structures
56		E. Identifying and Managing Role Responsibilities
57		F. Control Syetems and Performance Evaluation Mechanisms
58		G. Problem-Solving and Decision-Making Techniques
59		H. Conflict Management Skills
60		I. Team Development Techniques
61		J. Joining-up Processes
62		K. Developing Self-awareness and Effectiveness
63		L. Managing Organization Change
	IV	MEDICAL SOCIOLOGY/ANTHROPOLOGY (SEE ALSO THE INTERVENTION PROCESS)
64		A. Social and Cultural Definitions of Health and Illness
65		B. Utilization of Health Services
66		C. The Provider-Patient Relationship
67		D. Socialization and Training of Health Professionals
68		E. Professional Behavior in Organization Settings
69		F. Community Influence on Health Care Delivery and Accountability

ENVIRONMENT OF HEALTH SERVICES ORGANIZATION

Component Number:		
	I	HUMAN SERVICES
70		A. What Are the Health and Human Services?
71		B. Quality
72		C. Accessibility
73		D. Continuity
74		E. Cost and Accountability
75		F. Organization
76		G. Evaluation
	II	PROGRAM EVALUATION
77		A. What Is Program Evaluation?
78		B. Defining Program Objectives and Components
79		C. Experimental and Quasi-experimental Designs
80		D. Reliability and Validity of Measurement
81		E. Strategies and Issues in Data Collection and Data Analysis
82		F. Program Implementation - Political and Administrative Issues
83		G. Uses of Program Evaluation in the Development of Public Policy
	III	CROSS NATIONAL STUDY OF HEALTH SYSTEMS (CNSHS)
84		A. General
85		B. Overview of World Health and Health Systems
86		C. Health Systems in "Underdeveloped" Countries
87		D. Health Systems of "Developed" Countries
88		E. Frameworks for CNSHS
89		F. Methods and Data Problems
90		G. Approaches to CNSHS
	IV	POLITICAL SCIENCE
		A. Political Culture - Context of Policy Formation
91		1. Theories, Ideologies, and Belief Systems
92		2. Political Attitudes, Opinions, and Behavior
		B. Policy Formation: Structure and Process
93		1. Distribution of Power
94		2. Extra-governmental Institutions
95		3. Governmental Institutions
		C. Policy Outputs and Outcomes
96		1. Policy Analysis
97		2. Policy Content
		D. Modelling
	V	HEALTH ECONOMICS
98		A. Introduction to Basic Micro-Economics
99		B. Problems of Market Structure and Regulation
100		C. Cost-Benefit and Cost-Effectiveness Analysis

D. Basic Concepts of Health Economics
E. Demand for Health Services
F. Costs and Production in the Health Sector
G. Provider Behavior and Markets for Health Services
H. Cost-Benefit Analysis of Health Programs
I. Economic Analysis of Health Policy Issues

VI HEALTH LAW

A. Basics of the Law, Legal System, and Legal Decision-making Process
B. Legal Materials
C. General Principles of Law
D. Legal Issues Relating to Health Services Delivery
   1. Relationship between Government and the Individual
   2. Relationship between Government and Providers
   3. Relationship between Providers of Services and Consumers
E. Exposure to the Legal System in Practice